Architecting highly hydratable polymer networks to turpurification

Science Advances

5, eaaw5484

DOI: 10.1126/sciadv.aaw5484

Citation Report

#	Article	IF	Citations
1	Synergistic Energy Nanoconfinement and Water Activation in Hydrogels for Efficient Solar Water Desalination. ACS Nano, 2019, 13, 7913-7919.	7.3	354
2	Hydrogels as an Emerging Material Platform for Solar Water Purification. Accounts of Chemical Research, 2019, 52, 3244-3253.	7.6	392
3	Sustainable Biochar-Based Solar Absorbers for High-Performance Solar-Driven Steam Generation and Water Purification. ACS Sustainable Chemistry and Engineering, 2019, 7, 19311-19320.	3.2	99
4	Manipulating light trapping and water vaporization enthalpy <i>via</i> porous hybrid nanohydrogels for enhanced solar-driven interfacial water evaporation with antibacterial ability. Journal of Materials Chemistry A, 2019, 7, 26769-26775.	5.2	36
5	A flowerlike sponge coated with carbon black nanoparticles for enhanced solar vapor generation. Journal of Materials Science, 2020, 55, 298-308.	1.7	37
6	Tailoring Aerogels and Related 3D Macroporous Monoliths for Interfacial Solar Vapor Generation. Advanced Functional Materials, 2020, 30, 1907234.	7.8	109
7	All-weather-available, continuous steam generation based on the synergistic photo-thermal and electro-thermal conversion by MXene-based aerogels. Materials Horizons, 2020, 7, 855-865.	6.4	153
8	Hydrogel microcapsules with photocatalytic nanoparticles for removal of organic pollutants. Environmental Science: Nano, 2020, 7, 656-664.	2.2	51
9	Gel–Emulsionâ€Templated Polymeric Aerogels for Water Treatment by Organic Liquid Removal and Solar Vapor Generation. ChemSusChem, 2020, 13, 749-755.	3.6	25
10	Preparation and properties of self-healable and conductive PVA-agar hydrogel with ultra-high mechanical strength. European Polymer Journal, 2020, 124, 109465.	2.6	70
11	Solid waste and graphite derived solar steam generator for highly-efficient and cost-effective water purification. Applied Energy, 2020, 261, 114410.	5.1	70
12	Overcoming Salt Crystallization During Solar Desalination Based on Diatomite-Regulated Water Supply. ACS Sustainable Chemistry and Engineering, 2020, 8, 1548-1554.	3. 2	31
13	Highly Efficient Clean Water Production from Contaminated Air with a Wide Humidity Range. Advanced Materials, 2020, 32, e1905875.	11.1	123
14	Simple preparation of external-shape and internal-channel size adjustable porous hydrogels by fermentation for efficient solar interfacial evaporation. Solar Energy, 2020, 208, 778-786.	2.9	27
15	Accelerating solar desalination in brine through ion activated hierarchically porous polyion complex hydrogels. Materials Horizons, 2020, 7, 3187-3195.	6.4	99
16	Nano Heat Pump Based on Reverse Thermo-osmosis Effect. Journal of Physical Chemistry Letters, 2020, 11, 9856-9861.	2.1	8
17	Microvesselâ€Assisted Environmental Thermal Energy Extraction Enabling 24â€Hour Continuous Interfacial Vapor Generation. ChemSusChem, 2020, 13, 6635-6642.	3.6	16
18	Autonomous atmospheric water seeping MOF matrix. Science Advances, 2020, 6, .	4.7	120

#	Article	IF	Citations
19	Integrated Evaporator for Efficient Solar-Driven Interfacial Steam Generation. Nano Letters, 2020, 20, 6051-6058.	4.5	121
20	An all-day solar-driven vapor generator <i>via</i> photothermal and Joule-heating effects. Journal of Materials Chemistry A, 2020, 8, 25178-25186.	5.2	50
21	Recent advances in solar-driven evaporation systems. Journal of Materials Chemistry A, 2020, 8, 25571-25600.	5.2	77
22	3D Printing of Dual-Physical Cross-linking Hydrogel with Ultrahigh Strength and Toughness. Chemistry of Materials, 2020, 32, 9983-9995.	3.2	89
23	Topologyâ€Controlled Hydration of Polymer Network in Hydrogels for Solarâ€Driven Wastewater Treatment. Advanced Materials, 2020, 32, e2007012.	11.1	225
24	Highly Efficient Solar Evaporator Based On a Hydrophobic Association Hydrogel. ACS Sustainable Chemistry and Engineering, 2020, 8, 18114-18125.	3.2	42
25	Adjusting Channel Size within PVA-Based Hydrogels via Ice Templating for Enhanced Solar Steam Generation. ACS Applied Energy Materials, 2020, 3, 9216-9225.	2.5	36
26	A Novel Salt-Rejecting Linen Fabric-Based Solar Evaporator for Stable and Efficient Water Desalination under Highly Saline Water. ACS Sustainable Chemistry and Engineering, 2020, 8, 11845-11852.	3.2	65
27	Banyan-inspired hierarchical evaporators for efficient solar photothermal conversion. Applied Energy, 2020, 276, 115545.	5.1	63
28	Multifunctional Nickel Sulfide Nanosheet Arrays for Solarâ€Intensified Oxygen Evolution Reaction. Small, 2020, 16, e2002550.	5.2	25
29	Energy Matching for Boosting Water Evaporation in Direct Solar Steam Generation. Solar Rrl, 2020, 4, 2000341.	3.1	50
30	Towards highly efficient solar-driven interfacial evaporation for desalination. Journal of Materials Chemistry A, 2020, 8, 17907-17937.	5.2	115
31	A MXeneâ€Based Hierarchical Design Enabling Highly Efficient and Stable Solarâ€Water Desalination with Good Salt Resistance. Advanced Functional Materials, 2020, 30, 2007110.	7.8	215
32	Artificial Trees Inspired by <i>Monstera</i> for Highly Efficient Solar Steam Generation in Both Normal and Weak Light Environments. Advanced Functional Materials, 2020, 30, 2005513.	7.8	95
33	Turning Trash into Treasure: Pencil Waste–Derived Materials for Solarâ€Powered Water Evaporation. Energy Technology, 2020, 8, 2000567.	1.8	22
34	Nanoconfined Waterâ€Molecule Channels for Highâ€Yield Solar Vapor Generation under Weaker Sunlight. Advanced Materials, 2020, 32, e2001544.	11.1	94
35	Fabrication of antiseptic, conductive and robust polyvinyl alcohol/chitosan composite hydrogels. Journal of Polymer Research, 2020, 27, 1.	1.2	15
36	Unveiling the Molecular Mechanisms of Thickness-Dependent Water Dynamics in an Ultrathin Free-Standing Polyamide Membrane. Journal of Physical Chemistry B, 2020, 124, 11939-11948.	1.2	11

#	ARTICLE	IF	CITATIONS
37	A Multidirectionally Thermoconductive Phase Change Material Enables High and Durable Electricity ⟨i⟩via⟨ i⟩ Real-Environment Solar–Thermal–Electric Conversion. ACS Nano, 2020, 14, 15738-15747.	7.3	152
38	Sandwich Photothermal Membrane with Confined Hierarchical Carbon Cells Enabling Highâ€Efficiency Solar Steam Generation. Small, 2020, 16, e2000573.	5. 2	67
39	Atmospheric Water Harvesting: A Review of Material and Structural Designs. , 2020, 2, 671-684.		274
40	Tough, high-strength PDAAM-co-PAAM hydrogels synthesized without a crosslinking agent. Journal of Materials Science, 2020, 55, 10878-10895.	1.7	6
41	Double-layer cellulose hydrogel solar steam generation for high-efficiency desalination. Carbohydrate Polymers, 2020, 243, 116480.	5.1	100
42	Scalable, flexible and reusable graphene oxide-functionalized electrospun nanofibrous membrane for solar photothermal desalination. Desalination, 2020, 488, 114535.	4.0	71
43	Lotus-Inspired Evaporator with Janus Wettability and Bimodal Pores for Solar Steam Generation. Cell Reports Physical Science, 2020, 1, 100074.	2.8	43
44	Development of high-performance polyelectrolyte-complex-nanoparticle-based pervaporation membranes via convenient tailoring of charged groups. Journal of Materials Science, 2020, 55, 12607-12620.	1.7	14
45	Engineering trace AuNPs on monodispersed carbonized organosilica microspheres drives highly efficient and low-cost solar water purification. Journal of Materials Chemistry A, 2020, 8, 13311-13319.	5 . 2	48
46	Hydrophilic/hydrophobic Janus membranes with a dual-function surface coating for rapid and robust membrane distillation desalination. Desalination, 2020, 491, 114561.	4.0	42
47	New hydrogel materials for improving solar water evaporation, desalination and wastewater treatment: A review. Desalination, 2020, 491, 114564.	4.0	142
48	Plasmonic wooden flower for highly efficient solar vapor generation. Nano Energy, 2020, 76, 104998.	8.2	126
49	Bioinspired hydrogel-based nanofluidic ionic diodes: nano-confined network tuning and ion transport regulation. Chemical Communications, 2020, 56, 8123-8126.	2.2	16
50	Carbon-based absorbers for solar evaporation: Steam generation and beyond. Sustainable Materials and Technologies, 2020, 25, e00182.	1.7	35
51	Tailoring surface wetting states for ultrafast solar-driven water evaporation. Energy and Environmental Science, 2020, 13, 2087-2095.	15.6	236
52	Materials for solar-powered water evaporation. Nature Reviews Materials, 2020, 5, 388-401.	23.3	784
53	A Scalable Nickel–Cellulose Hybrid Metamaterial with Broadband Light Absorption for Efficient Solar Distillation. Advanced Materials, 2020, 32, e1907975.	11.1	73
54	Low-Tortuosity Water Microchannels Boosting Energy Utilization for High Water Flux Solar Distillation. Environmental Science & Echnology, 2020, 54, 5150-5158.	4.6	89

#	Article	IF	CITATIONS
55	Highly Efficient Water Treatment via a Wood-Based and Reusable Filter., 2020, 2, 430-437.		50
56	Solar-driven interfacial desalination for simultaneous freshwater and salt generation. Desalination, 2020, 484, 114423.	4.0	121
57	A broadband aggregation-independent plasmonic absorber for highly efficient solar steam generation. Journal of Materials Chemistry A, 2020, 8, 10742-10746.	5.2	88
58	A high-efficiency ammonia-responsive solar evaporator. Nanoscale, 2020, 12, 9680-9687.	2.8	10
59	Structure Architecting for Saltâ€Rejecting Solar Interfacial Desalination to Achieve Highâ€Performance Evaporation With In Situ Energy Generation. Advanced Science, 2020, 7, 1903478.	5.6	224
60	Nanoplating of a SnO ₂ thin-film on MXene-based sponge for stable and efficient solar energy conversion. Journal of Materials Chemistry A, 2020, 8, 8065-8074.	5 . 2	19
61	Robust carbon-dot-based evaporator with an enlarged evaporation area for efficient solar steam generation. Journal of Materials Chemistry A, 2020, 8, 14566-14573.	5.2	44
62	Hydrogels and Hydrogel-Derived Materials for Energy and Water Sustainability. Chemical Reviews, 2020, 120, 7642-7707.	23.0	646
63	Sustainable Wood-Based Hierarchical Solar Steam Generator: A Biomimetic Design with Reduced Vaporization Enthalpy of Water. Nano Letters, 2020, 20, 5699-5704.	4.5	162
64	Functionalized MXene Enabled Sustainable Water Harvesting and Desalination. Advanced Sustainable Systems, 2020, 4, 2000102.	2.7	36
65	Solar-Driven Freshwater Generation from Seawater and Atmospheric Moisture Enabled by a Hydrophilic Photothermal Foam. ACS Applied Materials & Samp; Interfaces, 2020, 12, 10307-10316.	4.0	33
66	Effects of Crosslinker Concentration in Poly(Acrylic Acid)â€KOH Gel Electrolyte on Performance of Zincâ€Air Batteries. Batteries and Supercaps, 2020, 3, 409-416.	2.4	34
67	Preparation and characterizations of flexible photothermal Ti2O3-PVA nanocomposites. Journal of Alloys and Compounds, 2020, 825, 153998.	2.8	22
68	Efficient Solarâ€Driven Water Harvesting from Arid Air with Metal–Organic Frameworks Modified by Hygroscopic Salt. Angewandte Chemie, 2020, 132, 5240-5248.	1.6	11
69	Multi-triggered and enzyme-mimicking graphene oxide/polyvinyl alcohol/G-quartet supramolecular hydrogels. Nanoscale, 2020, 12, 5186-5195.	2.8	22
70	Hydrogel machines. Materials Today, 2020, 36, 102-124.	8.3	625
71	Efficient Solarâ€Driven Water Harvesting from Arid Air with Metal–Organic Frameworks Modified by Hygroscopic Salt. Angewandte Chemie - International Edition, 2020, 59, 5202-5210.	7.2	231
72	Multifunctional perovskite oxide for efficient solar-driven evaporation and energy-saving regeneration. Nano Energy, 2020, 70, 104538.	8.2	32

#	Article	lF	CITATIONS
73	Hydrophilic polymer-stabilized porous composite membrane for water evaporation and solar desalination. RSC Advances, 2020, 10, 2507-2512.	1.7	25
74	Direction-limited water transport and inhibited heat convection loss of gradient-structured hydrogels for highly efficient interfacial evaporation. Solar Energy, 2020, 201, 581-588.	2.9	26
75	Stabilized Mo2S3 by FeS2 based porous solar evaporation systems for highly efficient clean freshwater collection. Solar Energy Materials and Solar Cells, 2020, 211, 110531.	3.0	24
76	Latest development in salt removal from solar-driven interfacial saline water evaporators: Advanced strategies and challenges. Water Research, 2020, 177, 115770.	5.3	131
77	Water-Templated, Polysaccharide-rich Bioartificial 3D Microarchitectures as Extra-Cellular Matrix Bioautomatons. ACS Applied Materials & Samp; Interfaces, 2020, 12, 20912-20921.	4.0	7
78	Realization of Low Latent Heat of a Solar Evaporator via Regulating the Water State in Wood Channels. ACS Applied Materials & Samp; Interfaces, 2020, 12, 18504-18511.	4.0	83
79	Ag/polypyrrole co-modified poly(ionic liquid)s hydrogels as efficient solar generators for desalination. Materials Today Energy, 2020, 16, 100417.	2.5	44
80	Molybdenum Carbide/Carbon-Based Chitosan Hydrogel as an Effective Solar Water Evaporation Accelerator. ACS Sustainable Chemistry and Engineering, 2020, 8, 7139-7149.	3.2	77
81	Biomimetic MXeneâ€Polyvinyl Alcohol Composite Hydrogel with Vertically Aligned Channels for Highly Efficient Solar Steam Generation. Advanced Materials Technologies, 2020, 5, 2000065.	3.0	100
82	Hydrogel materials as an emerging platform for desalination and the production of purified water. Separation and Purification Reviews, 2021, 50, 380-399.	2.8	23
83	Bioinspired Fractal Design of Waste Biomassâ€Derived Solar–Thermal Materials for Highly Efficient Solar Evaporation. Advanced Functional Materials, 2021, 31, 2007648.	7.8	98
84	Robust, 3D-printed hydratable plastics for effective solar desalination. Nano Energy, 2021, 79, 105436.	8.2	52
85	A review of natural materials for solar evaporation. Solar Energy Materials and Solar Cells, 2021, 219, 110814.	3.0	77
86	Solarâ€Driven Allâ€inâ€One Interfacial Water Evaporator Based on Electrostatic Flocking. Advanced Sustainable Systems, 2021, 5, .	2.7	16
87	Strategies for breaking theoretical evaporation limitation in direct solar steam generation. Solar Energy Materials and Solar Cells, 2021, 220, 110842.	3.0	47
88	Porous evaporators with special wettability for low-grade heat-driven water desalination. Journal of Materials Chemistry A, 2021, 9, 702-726.	5.2	60
89	A flexible and salt-rejecting electrospun film-based solar evaporator for economic, stable and efficient solar desalination and wastewater treatment. Chemosphere, 2021, 267, 128916.	4.2	38
90	High strength and toughness of double physically crossâ€linked hydrogels composed of polyvinyl alcohol and calcium alginate. Journal of Applied Polymer Science, 2021, 138, 49987.	1.3	9

#	Article	IF	CITATIONS
91	Metal-phenolic network coated cellulose foams for solar-driven clean water production. Carbohydrate Polymers, 2021, 254, 117404.	5.1	36
92	Solarâ€Driven Interfacial Evaporation and Selfâ€Powered Water Wave Detection Based on an Allâ€Cellulose Monolithic Design. Advanced Functional Materials, 2021, 31, 2008681.	7.8	150
93	Hierarchical structures hydrogel evaporator and superhydrophilic water collect device for efficient solar steam evaporation. Nano Research, 2021, 14, 1135-1140.	5.8	65
94	Thermoresponsive and antifouling hydrogels as a radiative energy driven water harvesting system. Materials Chemistry Frontiers, 2021, 5, 917-928.	3.2	5
95	Gel-emulsion templated polymeric aerogels for solar-driven interfacial evaporation and electricity generation. Materials Chemistry Frontiers, 2021, 5, 1953-1961.	3.2	23
96	Micro-/nanoscale biodegradable hydrogels: Water purification, management, conservation, and agrochemical delivery., 2021,, 201-229.		1
97	A novel photothermal, self-healing and anti-reflection water evaporation membrane. Soft Matter, 2021, 17, 4730-4737.	1.2	12
98	Hydrogel: Diversity of Structures and Applications in Food Science. Food Reviews International, 2021, 37, 313-372.	4.3	81
99	Multifunctional oligomer sponge for efficient solar water purification and oil cleanup. Journal of Materials Chemistry A, 2021, 9, 2104-2110.	5.2	11
100	Design of monolithic closed-cell polymer foams <i>via</i> controlled gas-foaming for high-performance solar-driven interfacial evaporation. Journal of Materials Chemistry A, 2021, 9, 9692-9705.	5.2	77
101	Solar-driven ionic power generation <i>via</i> a film of nanocellulose @ conductive metal–organic framework. Energy and Environmental Science, 2021, 14, 900-905.	15.6	54
102	Janus-interface engineering boosting solar steam towards high-efficiency water collection. Energy and Environmental Science, 2021, 14, 5330-5338.	15.6	122
103	Low-cost and scalable carbon bread used as an efficient solar steam generator with high performance for water desalination and purification. RSC Advances, 2021, 11, 8674-8681.	1.7	8
104	Carbon nanotubes@silicone solar evaporators with controllable salt-tolerance for efficient water evaporation in a closed system. Journal of Materials Chemistry A, 2021, 9, 17502-17511.	5.2	35
105	Sustainable Solar Evaporation while Salt Accumulation. ACS Applied Materials & Samp; Interfaces, 2021, 13, 4935-4942.	4.0	46
106	Harnessing synchronous photothermal and photocatalytic effects of cryptomelane-type MnO ₂ nanowires towards clean water production. Journal of Materials Chemistry A, 2021, 9, 2414-2420.	5.2	27
107	Sandwich hydrogel with confined plasmonic Cu/carbon cells for efficient solar water purification. Journal of Materials Chemistry A, 2021, 9, 15462-15471.	5.2	41
108	Bioinspired structural and functional designs towards interfacial solar steam generation for clean water production. Materials Chemistry Frontiers, 2021, 5, 1510-1524.	3.2	42

#	Article	IF	CITATIONS
109	Rational designs of interfacial-heating solar-thermal desalination devices: recent progress and remaining challenges. Journal of Materials Chemistry A, 2021, 9, 6612-6633.	5.2	51
110	A bio-inspired, hierarchically porous structure with a decoupled fluidic transportation and evaporative pathway toward high-performance evaporation. Journal of Materials Chemistry A, 2021, 9, 9745-9752.	5.2	19
111	Nano/microstructured materials for solar-driven interfacial evaporators towards water purification. Journal of Materials Chemistry A, 2021, 9, 13746-13769.	5.2	31
112	Cu-based MOF-derived porous carbon with highly efficient photothermal conversion performance for solar steam evaporation. Journal of Materials Chemistry A, 2021, 9, 16805-16813.	5.2	72
113	An integrated highly hydrated cellulose network with a synergistic photothermal effect for efficient solar-driven water evaporation and salt resistance. Journal of Materials Chemistry A, 2021, 9, 15482-15492.	5.2	71
114	Photothermal Membrane Distillation toward Solar Water Production. Small Methods, 2021, 5, e2001200.	4.6	137
115	Review of interface solar-driven steam generation systems: High-efficiency strategies, applications and challenges. Applied Energy, 2021, 283, 116361.	5.1	55
116	Three-Dimensionally Structured Polypyrrole-Coated <i>Setaria viridis</i> Spike Composites for Efficient Solar Steam Generation. ACS Applied Materials & Spike Composites for Efficient Solar Steam Generation. ACS Applied Materials & Spike Composites for Efficient Solar Steam Generation.	4.0	63
117	Solar-powered nanostructured biopolymer hygroscopic aerogels for atmospheric water harvesting. Nano Energy, 2021, 80, 105569.	8.2	99
118	Construction of a Three-Dimensional Interpenetrating Network Sponge for High-Efficiency and Cavity-Enhanced Solar-Driven Wastewater Treatment. ACS Applied Materials & Samp; Interfaces, 2021, 13, 10902-10915.	4.0	50
119	Enhanced Steam Temperature Enabled by a Simple Threeâ€√ier Solar Evaporation Device. Global Challenges, 2021, 5, 2000092.	1.8	7
120	Interfacial Solar Vapor Generation: Materials and Structural Design. Accounts of Materials Research, 2021, 2, 198-209.	5.9	75
121	Poly(ionic liquid)-crosslinked graphene oxide/carbon nanotube membranes as efficient solar steam generators. Green Energy and Environment, 2023, 8, 151-162.	4.7	29
122	Highâ€Yield and Lowâ€Cost Solar Water Purification via Hydrogelâ€Based Membrane Distillation. Advanced Functional Materials, 2021, 31, 2101036.	7.8	90
123	Enhanced solar steam generation of hydrogel composite with aligned channel and shape memory behavior. Composites Science and Technology, 2021, 204, 108633.	3.8	75
124	A Bioinspired Elastic Hydrogel for Solarâ€Driven Water Purification. Advanced Materials, 2021, 33, e2007833.	11.1	119
125	Biomass-Derived Carbonaceous Materials with Multichannel Waterways for Solar-Driven Clean Water and Thermoelectric Power Generation. ACS Sustainable Chemistry and Engineering, 2021, 9, 4571-4582.	3.2	56
126	Polymer–Water Interaction Enabled Intelligent Moisture Regulation in Hydrogels. Journal of Physical Chemistry Letters, 2021, 12, 2587-2592.	2.1	25

#	Article	IF	CITATIONS
127	Simultaneous solar-driven seawater desalination and spontaneous power generation using polyvalent crosslinked polypyrrole/alginate hydrogels. Desalination, 2021, 500, 114900.	4.0	45
128	A Gelationâ€Stabilized Strategy toward Photothermal Architecture Design for Highly Efficient Solar Water Evaporation. Solar Rrl, 2021, 5, 2100133.	3.1	27
129	Self-contained Janus Aerogel with Antifouling and Salt-Rejecting Properties for Stable Solar Evaporation. ACS Applied Materials & Samp; Interfaces, 2021, 13, 18829-18837.	4.0	86
130	Hydrophilic 3D Interconnected Network of Bacterial Nanocellulose/Black Titania Photothermal Foams as an Efficient Interfacial Solar Evaporator. ACS Applied Bio Materials, 2021, 4, 4373-4383.	2.3	21
131	Engineering Hydrogels for Efficient Solar Desalination and Water Purification. Accounts of Materials Research, 2021, 2, 374-384.	5.9	92
132	Photothermal Membrane of CuS/Polyacrylamide–Carboxymethyl Cellulose for Solar Evaporation. ACS Applied Polymer Materials, 2021, 3, 2402-2410.	2.0	33
133	Shape-Stable Hydrated Salts/Polyacrylamide Phase-Change Organohydrogels for Smart Temperature Management. ACS Applied Materials & Samp; Interfaces, 2021, 13, 21810-21821.	4.0	45
134	Facile fabrication of tough and biocompatible hydrogels from polyvinyl alcohol and agarose. Journal of Applied Polymer Science, 2021, 138, 50979.	1.3	7
135	Solar steam generation on scalable ultrathin thermoplasmonic TiN nanocavity arrays. Nano Energy, 2021, 83, 105828.	8.2	56
136	All-day fresh water harvesting by microstructured hydrogel membranes. Nature Communications, 2021, 12, 2797.	5.8	159
137	Chargeâ€Gradient Hydrogels Enable Direct Zero Liquid Discharge for Hypersaline Wastewater Management. Advanced Materials, 2021, 33, e2100141.	11.1	37
138	Interfacial Solar EvaporatorÂ- Physical Principles and Fabrication Methods. International Journal of Precision Engineering and Manufacturing - Green Technology, 2021, 8, 1347-1367.	2.7	16
139	Woodâ€Derived Systems for Sustainable Oil/Water Separation. Advanced Sustainable Systems, 2021, 5, 2100039.	2.7	22
140	A scalable broadband plasmonic cuprous telluride nanowire-based hybrid photothermal membrane for efficient solar vapor generation. Nano Energy, 2021, 84, 105868.	8.2	33
141	Surface Patterning of Two-Dimensional Nanostructure-Embedded Photothermal Hydrogels for High-Yield Solar Steam Generation. ACS Nano, 2021, 15, 10366-10376.	7.3	230
142	Aligned Millineedle Arrays for Solar Power Seawater Desalination with Siteâ€Specific Salt Formation. Small, 2021, 17, e2101487.	5. 2	36
143	Carbon Materials for Solar Water Evaporation and Desalination. Small, 2021, 17, e2007176.	5.2	186
144	Reduced Red Mud as the Solar Absorber for Solar-Driven Water Evaporation and Vapor–Electricity Generation. ACS Applied Materials & Samp; Interfaces, 2021, 13, 30556-30564.	4.0	32

#	Article	IF	Citations
145	Polyacid doping-enabled efficient solar evaporation of polypyrrole hydrogel. Desalination, 2021, 505, 114766.	4.0	56
146	3D Photothermal Cryogels for Solar-Driven Desalination. ACS Applied Materials & Emp; Interfaces, 2021, 13, 30542-30555.	4.0	37
147	Facile fabrication of nonswellable and biocompatible hydrogels with cartilage-comparable performances. Materials Today Communications, 2021, 27, 102375.	0.9	5
148	Interfacial solar vapor generation for desalination and brine treatment: Evaluating current strategies of solving scaling. Water Research, 2021, 198, 117135.	5.3	57
149	Multifunctional hydrogels for sustainable energy and environment. Polymer International, 2021, 70, 1425-1432.	1.6	33
150	Solar Water Evaporation Toward Water Purification and Beyond. , 2021, 3, 1112-1129.		107
151	Solar-Powered Sustainable Water Production: State-of-the-Art Technologies for Sunlightâ€"Energyâ€"Water Nexus. ACS Nano, 2021, 15, 12535-12566.	7.3	220
152	High performance carbonized corncob-based 3D solar vapor steam generator enhanced by environmental energy. Carbon, 2021, 179, 337-347.	5.4	70
153	Hierarchical Photothermal Fabrics with Low Evaporation Enthalpy as Heliotropic Evaporators for Efficient, Continuous, Salt-Free Desalination. ACS Nano, 2021, 15, 13007-13018.	7.3	191
154	Metal Ionâ€Induced Assembly of MXene Aerogels via Biomimetic Microtextures for Electromagnetic Interference Shielding, Capacitive Deionization, and Microsupercapacitors. Advanced Energy Materials, 2021, 11, 2101494.	10.2	61
155	Efficient solar seawater desalination constructed by oxide composite hydrogel with chitin as the base. Inorganic Chemistry Communication, 2021, 129, 108651.	1.8	6
156	Design and Utilization of Infrared Light for Interfacial Solar Water Purification. ACS Energy Letters, 2021, 6, 2645-2657.	8.8	29
157	3D Printing a Biomimetic Bridgeâ€Arch Solar Evaporator for Eliminating Salt Accumulation with Desalination and Agricultural Applications. Advanced Materials, 2021, 33, e2102443.	11.1	172
158	Molecular Engineering of Hydrogels for Rapid Water Disinfection and Sustainable Solar Vapor Generation. Advanced Materials, 2021, 33, e2102994.	11.1	105
159	Selfâ€Repairing and Damageâ€Tolerant Hydrogels for Efficient Solarâ€Powered Water Purification and Desalination. Advanced Functional Materials, 2021, 31, 2104464.	7.8	93
160	Hydrogel photocatalysts for efficient energy conversion and environmental treatment. Frontiers in Energy, 2021, 15, 577-595.	1.2	14
161	Self-Propelled Aerogel Solar Evaporators for Efficient Solar Seawater Purification. Langmuir, 2021, 37, 9532-9539.	1.6	19
162	Highly efficient evaporative cooling by all-day water evaporation using hierarchically porous biomass. Scientific Reports, 2021, 11, 16811.	1.6	26

#	Article	IF	CITATIONS
163	Solar-driven high-efficiency remediation of wastewater containing small dye molecules. Science China Technological Sciences, 2021, 64, 2237-2245.	2.0	11
164	Vertically symmetrical evaporator based on photothermal fabrics for efficient continuous desalination through inversion strategy. Desalination, 2021, 509, 115072.	4.0	34
165	Highly Saltâ€Resistant 3D Hydrogel Evaporator for Continuous Solar Desalination via Localized Crystallization. Advanced Functional Materials, 2021, 31, 2104380.	7.8	122
166	Tough and Antifreezing Organohydrogel Electrolyte for Flexible Supercapacitors with Wide Temperature Stability. ACS Applied Energy Materials, 2021, 4, 9353-9361.	2.5	23
167	A High Strength Hydrogel with a Core–Shell Structure Simultaneously Serving as Strain Sensor and Solar Water Evaporator. Macromolecular Materials and Engineering, 2021, 306, 2100309.	1.7	9
168	Donor–Acceptorâ€Type Organicâ€Smallâ€Moleculeâ€Based Solarâ€Energyâ€Absorbing Material for Highly Efficient Water Evaporation and Thermoelectric Power Generation. Advanced Functional Materials, 2021, 31, 2106247.	7.8	46
169	A scalable, cost-effective and salt-rejecting MoS2/SA@melamine foam for continuous solar steam generation. Nano Energy, 2021, 87, 106213.	8.2	99
170	Controlled Vertically Aligned Structures in Polymer Composites: Natural Inspiration, Structural Processing, and Functional Application. Advanced Materials, 2021, 33, e2103495.	11.1	62
171	Sustainable MXene/PDA hydrogel with core-shell structure tailored for highly efficient solar evaporation and long-term desalination. Polymer, 2021, 230, 124075.	1.8	28
172	Selfâ€Floating Efficient Solar Steam Generators Constructed Using Superâ€Hydrophilic N,O Dualâ€Doped Carbon Foams from Waste Polyester. Energy and Environmental Materials, 2022, 5, 1204-1213.	7.3	55
173	Scalable carbon black deposited fabric/hydrogel composites for affordable solar-driven water purification. Journal of Materials Science and Technology, 2022, 106, 10-18.	5.6	22
174	Highly Efficient Solar Vapor Generation via a Simple Morphological Alteration of TiO ₂ Films Grown on a Glassy Carbon Foam. ACS Applied Materials & Samp; Interfaces, 2021, 13, 50911-50919.	4.0	16
175	Conducting polymer hydrogels as a sustainable platform for advanced energy, biomedical and environmental applications. Science of the Total Environment, 2021, 786, 147430.	3.9	19
176	Solar absorber with tunable porosity to control the water supply velocity to accelerate water evaporation. Desalination, 2021, 511, 115113.	4.0	43
177	Amorphous Highâ€Entropy Hydroxides of Tunable Wide Solar Absorption for Solar Water Evaporation. Particle and Particle Systems Characterization, 2021, 38, 2100094.	1.2	3
178	High-performance bilayer solar evaporators constructed by candle-derived carbon nanoparticle/wood hybrid. Materials Today Communications, 2021, 28, 102636.	0.9	11
179	Synergy of photocatalysis and photothermal effect in integrated OD perovskite oxide/2D MXene heterostructures for simultaneous water purification and solar steam generation. Applied Catalysis B: Environmental, 2021, 295, 120285.	10.8	162
180	Nanofibrous hydrogel-reduced graphene oxide membranes for effective solar-driven interfacial evaporation and desalination. Chemical Engineering Journal, 2021, 422, 129998.	6.6	83

#	Article	IF	CITATIONS
181	Interfacial solar evaporator for clean water production and beyond: From design to application. Applied Energy, 2021, 299, 117317.	5.1	33
182	Assembling carbon dots on vertically aligned acetate fibers as ideal salt-rejecting evaporators for solar water purification. Chemical Engineering Journal, 2021, 421, 129822.	6.6	57
183	Composite hydrogel-based photothermal self-pumping system with salt and bacteria resistance for super-efficient solar-powered water evaporation. Desalination, 2021, 515, 115192.	4.0	24
184	Tailoring polypyrrole-based Janus aerogel for efficient and stable solar steam generation. Desalination, 2021, 516, 115228.	4.0	63
185	A Chitin/CuS composite film for efficient solar seawater desalination. Inorganic Chemistry Communication, 2021, 133, 108886.	1.8	4
186	Recent advanced self-propelling salt-blocking technologies for passive solar-driven interfacial evaporation desalination systems. Nano Energy, 2021, 89, 106468.	8.2	106
187	A review on photothermal material and its usage in the development of photothermal membrane for sustainable clean water production. Desalination, 2021, 517, 115259.	4.0	100
188	Durable, scalable and affordable iron (III) based coconut husk photothermal material for highly efficient solar steam generation. Desalination, 2021, 518, 115280.	4.0	41
189	Preparation of MS/MIL-101(Cr) composite material and its properties of atmospheric water collection. Journal of Solid State Chemistry, 2021, 304, 122572.	1.4	3
190	Step towards the sustainable toxic dyes removal and recycling from aqueous solution- A comprehensive review. Resources, Conservation and Recycling, 2021, 175, 105849.	5.3	152
191	Flower-inspired bionic sodium alginate hydrogel evaporator enhancing solar desalination performance. Carbohydrate Polymers, 2021, 273, 118536.	5.1	34
192	An overview on hydrogel materials for solar desalination. Materials Today: Proceedings, 2021, 44, 2526-2532.	0.9	13
193	Ultrahigh solar steam generation rate of a vertically aligned reduced graphene oxide foam realized by dynamic compression. Journal of Materials Chemistry A, 2021, 9, 14859-14867.	5.2	79
194	Polypyrrole/PU hybrid hydrogels: electrically conductive and fast self-healing for potential applications in body-monitor sensors. New Journal of Chemistry, 2021, 45, 7321-7331.	1.4	13
195	Sustainable off-grid desalination of hypersaline waters using Janus wood evaporators. Energy and Environmental Science, 2021, 14, 5347-5357.	15.6	133
196	Synergistic solar-powered water-electricity generation <i>via</i> rational integration of semitransparent photovoltaics and interfacial steam generators. Journal of Materials Chemistry A, 2021, 9, 21197-21208.	5.2	28
197	Biomassâ€Derived Hybrid Hydrogel Evaporators for Costâ€Effective Solar Water Purification. Advanced Materials, 2020, 32, e1907061.	11.1	436
198	Ultraâ∈Black Pinecone for Efficient Solar Steam Generation under Omnidirectional Illumination. Advanced Sustainable Systems, 2021, 5, 2000244.	2.7	16

#	Article	IF	CITATIONS
199	Structure and properties of thermomechanically processed chitosan/carboxymethyl cellulose/graphene oxide polyelectrolyte complexed bionanocomposites. International Journal of Biological Macromolecules, 2020, 158, 420-429.	3.6	24
200	Agricultural waste-derived moisture-absorber for all-weather atmospheric water collection and electricity generation. Nano Energy, 2020, 74, 104922.	8.2	91
201	Poly(<i>N</i> -phenylglycine)-Based Bioinspired System for Stably and Efficiently Enhancing Solar Evaporation. ACS Sustainable Chemistry and Engineering, 2021, 9, 448-457.	3.2	28
202	Progress in marine derived renewable functional materials and biochar for sustainable water purification. Green Chemistry, 2021, 23, 8305-8331.	4.6	31
203	Copper-coordinated cellulose ion conductors for solid-state batteries. Nature, 2021, 598, 590-596.	13.7	262
204	Synergy of photothermal effect in integrated 0D natural melanin /2D reduced graphene oxide for effective solar steam generation and water purification. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 632, 127786.	2.3	17
205	Polymeric materials for solar water purification. Journal of Polymer Science, 2021, 59, 3084-3099.	2.0	21
206	Lightâ€responsive bilayered hydrogel for freshwater production from surface soil moisture. EcoMat, 2021, 3, e12144.	6.8	8
207	Sustainable polymer materials for flexible light control and thermal management. Journal of Polymer Science, $0, , .$	2.0	1
208	Highly Efficient Photothermal Conversion and Water Transport during Solar Evaporation Enabled by Amorphous Hollow Multishelled Nanocomposites. Advanced Materials, 2022, 34, e2107400.	11.1	68
209	Nature Sunflower Stalk Pith with Zwitterionic Hydrogel Coating for Highly Efficient and Sustainable Solar Evaporation. Advanced Functional Materials, 2022, 32, 2108135.	7.8	79
210	Novel superwetting nanofibrous skins for removing stubborn soluble oil in emulsified wastewater. Journal of Materials Chemistry A, 2021, 9, 26127-26134.	5. 2	12
211	Photothermally enabled MXene hydrogel membrane with integrated solar-driven evaporation and photodegradation for efficient water purification. Chemical Engineering Journal, 2022, 430, 133054.	6.6	92
212	Integrated reduced graphene oxide/polypyrrole hybrid aerogels for simultaneous photocatalytic decontamination and water evaporation. Applied Catalysis B: Environmental, 2022, 301, 120820.	10.8	98
213	High-performance solar-driven interfacial evaporation through molecular design of antibacterial, biomass-derived hydrogels. Journal of Colloid and Interface Science, 2022, 608, 840-852.	5.0	97
214	Covalent organic framework hydrogels for synergistic seawater desalination and uranium extraction. Journal of Materials Chemistry A, 2021, 9, 25611-25620.	5.2	46
215	Low-grade energy harvesting from dispersed exhaust steam for power generation using a soft biomimetic actuator. Nano Energy, 2022, 91, 106677.	8.2	13
216	Cobalt nanoparticle–carbon nanoplate as the solar absorber of a wood aerogel evaporator for continuously efficient desalination. Environmental Science: Water Research and Technology, 2021, 8, 151-161.	1.2	14

#	ARTICLE	IF	CITATIONS
217	Recyclable and efficient ocean biomass-derived hydrogel photothermal evaporator for thermally-localized solar desalination. Desalination, 2022, 523, 115449.	4.0	45
218	Behavior of supramolecular cross-links formed by host-guest interactions in hydrogels responding to water contents., 2022, 1, 100001.		10
219	Highly Elastic Interconnected Porous Hydrogels through Selfâ€Assembled Templating for Solar Water Purification. Angewandte Chemie, 2022, 134, e202114074.	1.6	16
220	Treeâ€Inspired Ultralong Hydroxyapatite Nanowiresâ€Based Multifunctional Aerogel with Vertically Aligned Channels for Continuous Flow Catalysis, Water Disinfection, and Solar Energyâ€Driven Water Purification. Advanced Functional Materials, 2022, 32, 2106978.	7.8	58
221	Polymeric Hydrogelsâ€"A Promising Platform in Enhancing Water Security for a Sustainable Future. Advanced Materials Interfaces, 2021, 8, 2100580.	1.9	46
222	Hierarchical porous aero-cryogels for wind energy enhanced solar vapor generation. Cellulose, 2022, 29, 953-966.	2.4	8
223	Sunflower-Stalk-Based Solar-Driven Evaporator with a Confined 2D Water Channel and an Enclosed Thermal-Insulating Cellular Structure for Stable and Efficient Steam Generation. ACS Applied Materials & Diterfaces, 2021, 13, 55299-55306.	4.0	17
224	Investigating the synergistic initiating effect on promoting methane hydrate formation via mixed graphene and sodium cholate. Journal of Molecular Liquids, 2022, 349, 118134.	2.3	5
225	Magnetically Driven Tunable 3D Structured Fe ₃ O ₄ Vertical Array for Highâ€Performance Solar Steam Generation. Small, 2022, 18, e2105198.	5.2	36
226	Highly Elastic Interconnected Porous Hydrogels through Selfâ€Assembled Templating for Solar Water Purification. Angewandte Chemie - International Edition, 2022, 61, e202114074.	7.2	70
227	Diatom-Inspired TiO ₂ -PANi-Decorated Bilayer Photothermal Foam for Solar-Driven Clean Water Generation. ACS Applied Materials & Interfaces, 2021, 13, 58124-58133.	4.0	34
228	Waterâ€Light Induced Selfâ€Blacking System Constituted by Quinoa Cellulose and Graphene Oxide for High Performance of Saltâ€Rejecting Solar Desalination. Advanced Sustainable Systems, 0, , 2100350.	2.7	5
229	Efficient solar steam generator using black SnOx cored PANI polymeric mesh under one Sun illumination. Journal of Industrial and Engineering Chemistry, 2022, 107, 45-52.	2.9	9
230	Solar-driven interfacial evaporation toward clean water production: burgeoning materials, concepts and technologies. Journal of Materials Chemistry A, 2021, 9, 27121-27139.	5.2	63
231	Effect of light intensity on solar-driven interfacial steam generation. Nanoscale, 2021, 13, 20387-20395.	2.8	26
232	Polyelectrolyte-based photothermal hydrogel with low evaporation enthalpy for solar-driven salt-tolerant desalination. Chemical Engineering Journal, 2022, 431, 134224.	6.6	82
233	ZrB2 assembled all-ceramic solar steam evaporator employing aluminum silicate ceramic fiberboard as a supporting substrate for highly efficient desalination. Chemical Engineering Journal, 2022, 431, 134333.	6.6	7
234	Arbitrarily reshaping and instantaneously self-healing graphene composite hydrogel with molecule polarization-enhanced ultrahigh electromagnetic interference shielding performance. Carbon, 2022, 188, 513-522.	5.4	31

#	Article	IF	CITATIONS
235	A Super Absorbent Resin-Based Solar Evaporator for Various Water Treatment. SSRN Electronic Journal, $0, \dots$	0.4	0
236	Enhanced Interfacial Solar Evaporation through Formation of Microâ€Meniscuses and Microdroplets to Reduce Evaporation Enthalpy. Advanced Functional Materials, 2022, 32, .	7.8	99
237	Polyzwitterionic Hydrogels for Efficient Atmospheric Water Harvesting. Angewandte Chemie, 2022, 134, .	1.6	11
238	Polyzwitterionic Hydrogels for Efficient Atmospheric Water Harvesting. Angewandte Chemie - International Edition, 2022, 61, .	7.2	95
239	Super Waterâ€Extracting Gels for Solarâ€Powered Volatile Organic Compounds Management in the Hydrological Cycle. Advanced Materials, 2022, 34, e2110548.	11.1	50
240	Interfacial Solar Steam/Vapor Generation for Heating and Cooling. Advanced Science, 2022, 9, e2104181.	5.6	42
241	Recent developments of hydrogel based solar water purification technology. Materials Advances, 2022, 3, 1322-1340.	2.6	21
242	lon-permselective conducting polymer-based electrokinetic generators with maximized utility of green water. Nano Energy, 2022, 94, 106946.	8.2	19
243	Janus Fibrous Mats Based Suspended Type Evaporator for Salt Resistant Solar Desalination and Salt Recovery. Small, 2022, 18, e2107156.	5.2	48
244	A Covalent Organic Framework/Graphene Dual-Region Hydrogel for Enhanced Solar-Driven Water Generation. Journal of the American Chemical Society, 2022, 144, 3083-3090.	6.6	115
245	Carbon-Supported Nano Tungsten Bronze Aerogels with Synergistically Enhanced Photothermal Conversion Performance: Fabrication and Application in Solar Evaporation. SSRN Electronic Journal, 0, , .	0.4	0
246	Biomass Hydrogels Combined with Carbon Nanotubes for Water Purification Via Efficient and Continuous Solar-Driven Steam Generation. SSRN Electronic Journal, 0, , .	0.4	0
247	Localized interfacial activation effect within interconnected porous photothermal matrix to promote solar-driven water evaporation. Journal of Materials Chemistry A, 2022, 10, 10548-10556.	5.2	13
248	Hygroscopic photothermal beads from marine polysaccharides: demonstration of efficient atmospheric water production, indoor humidity control and photovoltaic panel cooling. Journal of Materials Chemistry A, 2022, 10, 8556-8567.	5.2	20
249	Highly efficient and salt rejecting solar evaporation via a wick-free confined water layer. Nature Communications, 2022, 13, 849.	5.8	101
250	Adjustable object floating states based on three-segment three-phase contact line evolution. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2201665119.	3.3	1
251	Leveraging Hydrophilic Hierarchical Channels to Regulate Excessive Water for High-Efficiency Solar Steam Yield. ACS Applied Materials & Steam Yield.	4.0	29
252	A Nanostructured Moistureâ€Absorbing Gel for Fast and Largeâ€Scale Passive Dehumidification. Advanced Materials, 2022, 34, e2200865.	11.1	36

#	Article	IF	CITATIONS
253	Oil-polluted water purification via the carbon-nanotubes-doped organohydrogel platform. Nano Research, 2022, 15, 5653-5662.	5.8	10
254	Hierarchically Designed Three-Dimensional Composite Structure on a Cellulose-Based Solar Steam Generator. ACS Applied Materials & Samp; Interfaces, 2022, 14, 12284-12294.	4.0	35
255	Robust PEDOT:PSS-based hydrogel for highly efficient interfacial solar water purification. Chemical Engineering Journal, 2022, 442, 136284.	6.6	66
256	A Waveâ€Driven Piezoelectric Solar Evaporator for Water Purification. Advanced Energy Materials, 2022, 12, .	10.2	32
257	Porous polyvinyl alcohol/biochar hydrogel induced high yield solar steam generation and sustainable desalination. Journal of Environmental Chemical Engineering, 2022, 10, 107690.	3.3	18
258	Harvesting conductive heat loss of interfacial solar evaporator for thermoelectric power generation. Applied Thermal Engineering, 2022, 208, 118279.	3.0	19
259	Thermal-localized and salt-resistant polyacrylonitrile/polyvinylidene fluoride aerogel for efficient solar desalination. Desalination, 2022, 532, 115751.	4.0	17
260	A robust PVA/C/sponge composite hydrogel with improved photothermal interfacial evaporation rate inspired by the chimney effect. Desalination, 2022, 531, 115720.	4.0	19
261	Manipulating hydropathicity/hydrophobicity properties to achieve anti-corrosion copper-based membrane toward high-efficient solar water purification. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 643, 128755.	2.3	17
262	Synthesis and characterization of photosensitive gelatin-based hydrogels for photodynamic therapy in HeLa-CCL2 cell line. Photodiagnosis and Photodynamic Therapy, 2022, 38, 102818.	1.3	0
263	Magnetic nanostructure and biomolecule synergistically promoted Suaeda-inspired self-healing hydrogel composite for seawater evaporation. Science of the Total Environment, 2022, 830, 154545.	3.9	12
264	Electrochemical oxidation reconstructs graphene oxides on sponge for unprecedentedly high solar water evaporation. Carbon, 2022, 194, 267-273.	5.4	17
265	Hydrogel materials as absorber for improving water evaporation with solar still, desalination and wastewater treatment. Materials Today: Proceedings, 2021, , .	0.9	4
266	Interfacial Radiation-Absorbing Hydrogel Film for Efficient Thermal Utilization on Solar Evaporator Surfaces. Nano Letters, 2021, 21, 10516-10524.	4.5	46
267	Biomimetic hydrophilic foam with micro/nano-scale porous hydrophobic surface for highly efficient solar-driven vapor generation. Science China Materials, 2022, 65, 1057-1067.	3.5	16
268	Vertically Aligned Polyamidoxime/Graphene Oxide Hybrid Sheets' Membrane for Ultrafast and Selective Extraction of Uranium from Seawater. Advanced Functional Materials, 2022, 32, .	7.8	52
269	Architecting Hybrid Donor–Acceptor Dendritic Nanosheets Based on Polyoxometalate and Porphyrin for High‥ield Solar Water Purification. Advanced Functional Materials, 2022, 32, .	7.8	24
270	A hierarchical thermal interface material based on a double self-assembly technique enables efficient output power <i>via</i> solar thermoelectric conversion. Journal of Materials Chemistry A, 2022, 10, 10452-10465.	5.2	18

#	Article	IF	CITATIONS
271	Highâ€Performance Freshwater Harvesting System by Coupling Solar Desalination and Fog Collection with Hierarchical Porous Microneedle Arrays. Advanced Functional Materials, 2022, 32, .	7.8	45
272	Surface-Plasmon-Assisted Growth, Reshaping and Transformation of Nanomaterials. Nanomaterials, 2022, 12, 1329.	1.9	4
273	Carbon-supported nano tungsten bronze aerogels with synergistically enhanced photothermal conversion performance: Fabrication and application in solar evaporation. Carbon, 2022, 195, 263-271.	5.4	31
274	High-flux flowing interfacial water evaporation under multiple heating sources enabled by a biohybrid hydrogel. Nano Energy, 2022, 98, 107287.	8.2	55
275	Synergistically regulated surface structure and water transportation of sponge hydrogel evaporator for efficient water desalination. Desalination, 2022, 533, 115780.	4.0	15
276	Chemical treatment of biomass wastes as carbon dot carriers for solar-driven water purification. Journal of Colloid and Interface Science, 2022, 621, 33-40.	5.0	18
277	Flexible Solar Absorber Using Hydrophile/Hydrophobe Amphipathic Janus Nanofiber as Building Unit for Efficient Vapor Generation. SSRN Electronic Journal, 0, , .	0.4	0
278	Structures, properties, and applications of zwitterionic polymers. ChemPhysMater, 2022, 1, 294-309.	1.4	33
279	General Synthesis of Large Inorganic Nanosheets via 2D Confined Assembly of Nanoparticles. ACS Central Science, 2022, 8, 627-635.	5.3	7
280	Rational Design of Photothermal and Anti-Bacterial Foam With Macroporous Structure for Efficient Desalination of Water. Frontiers in Chemistry, 2022, 10, .	1.8	1
281	Biomass hydrogels combined with carbon nanotubes for water purification via efficient and continuous solar-driven steam generation. Science of the Total Environment, 2022, 837, 155757.	3.9	26
282	Electricityâ€Boosted Solarâ€toâ€Vapor Conversion upon Fiberâ€Supported CDs@CuS for Rapidly Vaporizing Seawater. Solar Rrl, 2022, 6, .	3.1	8
283	Avantâ€Garde Solar–Thermal Nanostructures: Nascent Strategy into Effective Photothermal Desalination. Solar Rrl, 2022, 6, .	3.1	13
284	Desalination of high-salt brine via carbon materials promoted cyclopentane hydrate formation. Desalination, 2022, 534, 115785.	4.0	11
285	A hydrovoltaic power generation system based on solar thermal conversion. Nano Energy, 2022, 99, 107356.	8.2	19
286	Ultrafast Solar-Vapor Harvesting Based on a Hierarchical Porous Hydrogel with Wettability Contrast and Tailored Water States. ACS Applied Materials & Samp; Interfaces, 2022, 14, 24766-24774.	4.0	10
287	Carbon fiber coated by quinoa cellulose nanosheet with outstanding scaled salt self-cleaning performance and purification of organic and antibiotic contaminated water. Scientific Reports, 2022, 12, .	1.6	6
288	Molecular-assembly route to fabricate a robust flexible hydrogel membrane for high-efficient and durable solar water purification. Separation and Purification Technology, 2022, 295, 121335.	3.9	17

#	Article	IF	CITATIONS
289	Controllable synthesis of N/Co-doped carbon from metal–organic frameworks for integrated solar vapor generation and advanced oxidation processes. Journal of Materials Chemistry A, 2022, 10, 13378-13392.	5.2	52
290	Rendering passive radiative cooling capability to cotton textile by an alginate/CaCO3 coating via synergistic light manipulation and high water permeation. Composites Part B: Engineering, 2022, 240, 109988.	5.9	14
291	Solar steam generation by porous conducting polymer hydrogel. Solar Energy, 2022, 240, 237-245.	2.9	10
292	Highly efficient and long-term stable solar-driven water purification through a rechargeable hydrogel evaporator. Desalination, 2022, 537, 115872.	4.0	33
293	Shape-Controlled Fabrication of Mno/C Hybrid Nanoparticle from Waste Polyester for Solar Evaporation and Thermoelectricity Generation. SSRN Electronic Journal, $0,$	0.4	0
294	Sustainable water generation: grand challenges in continuous atmospheric water harvesting. Energy and Environmental Science, 2022, 15, 3223-3235.	15.6	37
295	Resistance to aggregation-caused quenching: chitosan-based solid carbon dots for white light-emitting diode and 3D printing. Advanced Composites and Hybrid Materials, 2022, 5, 1865-1875.	9.9	45
296	Stretchable and Superhydrophilic Polyaniline/Halloysite Decorated Nanofiber Composite Evaporator for High Efficiency Seawater Desalination. Advanced Fiber Materials, 2022, 4, 1233-1245.	7.9	61
297	A Light-Permeable Solar Evaporator with Three-Dimensional Photocatalytic Sites to Boost Volatile-Organic-Compound Rejection for Water Purification. Environmental Science & Eamp; Technology, 2022, 56, 9797-9805.	4.6	25
298	High-Porosity Lamellar Films Prepared by a Multistage Assembly Strategy for Efficient Photothermal Water Evaporation and Power Generation. ACS Applied Materials & Samp; Interfaces, 2022, 14, 29099-29110.	4.0	22
299	Flexible solar absorber using hydrophile/hydrophobe amphipathic Janus nanofiber as building unit for efficient vapor generation. Separation and Purification Technology, 2022, 297, 121526.	3.9	11
300	Zwitterionic functionalized catalytic evaporator enables simultaneous solar distillation and organic pollutant degradation. Applied Energy, 2022, 321, 119372.	5.1	11
301	A super absorbent resin-based solar evaporator for high-efficient various water treatment. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 648, 129405.	2.3	6
302	An anti-oil-fouling superhydrophilic composite aerogel for solar saline alkali water desalination. New Journal of Chemistry, 2022, 46, 14479-14489.	1.4	8
303	Advanced solar desalination on superwetting surfaces. Journal of Materials Chemistry A, 2022, 10, 19348-19366.	5.2	9
304	Breathâ€Figure Selfâ€Assembled Lowâ€Cost Janus Fabrics for Highly Efficient and Stable Solar Desalination. Advanced Functional Materials, 2022, 32, .	7.8	80
305	Towards highly salt-rejecting solar interfacial evaporation: Photothermal materials selection, structural designs, and energy management., 2022, 1, e9120014.		49
306	Polyzwitterionic Hydrogels for Highly Efficient High Salinity Solar Desalination. Angewandte Chemie - International Edition, 2022, 61, .	7.2	69

#	Article	IF	CITATIONS
307	Polyzwitterionic Hydrogels for Highly Efficient High Salinity Solar Desalination. Angewandte Chemie, 0, , .	1.6	2
308	Super-Hygroscopic Calcium Chloride/Graphene Oxide/Poly(N-isopropylacrylamide) Gels for Spontaneous Harvesting of Atmospheric Water and Solar-Driven Water Release. ACS Applied Materials & Lorentz &	4.0	24
309	Sandwich-type absorber for synergistically enhanced solar water evaporation and photocatalysis. Journal of Environmental Chemical Engineering, 2022, 10, 108173.	3.3	8
310	Molecular engineering of biomass-derived hybrid hydrogels for solar water purification. Journal of Colloid and Interface Science, 2022, 626, 231-240.	5.0	12
311	Environmentally adaptive and durable hydrogels toward multi-sensory application. Chemical Engineering Journal, 2022, 449, 137907.	6.6	25
312	Sandwich-structured evaporator with multilayer confined heating interface for boosting solar vapor generation. Chemical Engineering Journal, 2022, 450, 137988.	6.6	6
313	Enhanced Solar Evaporation Using a Scalable MoS ₂ â€Based Hydrogel for Highly Efficient Solar Desalination. Angewandte Chemie - International Edition, 2022, 61, .	7.2	44
314	Enhanced Solar Evaporation Using a Scalable MoS ₂ â€Based Hydrogel for Highly Efficient Solar Desalination. Angewandte Chemie, 2022, 134, .	1.6	13
315	Recyclable physical hydrogels as durable and efficient solar-driven evaporators. Chemical Engineering Journal, 2022, 450, 138257.	6.6	22
316	A reconfigurable and magnetically responsive assembly for dynamic solar steam generation. Nature Communications, 2022, 13 , .	5.8	52
317	Exhausted Cr(VI) Sensing/Removal Aerogels Are Recycled for Water Purification and Solarâ€Thermal Energy Generation. Small, 2022, 18, .	5.2	20
318	Biomassâ€based biomimeticâ€oriented Janus nanoarchitecture for efficient heavyâ€metal enrichment and interfacial solar water sanitation. , 2022, 1, 537-547.		21
319	Sorbents for Atmospheric Water Harvesting: From Design Principles to Applications. Angewandte Chemie, 2022, 134, .	1.6	10
320	Sorbents for Atmospheric Water Harvesting: From Design Principles to Applications. Angewandte Chemie - International Edition, 2022, 61, .	7.2	51
321	Tailoring the Desorption Behavior of Hygroscopic Gels for Atmospheric Water Harvesting in Arid Climates. Advanced Materials, 2022, 34, .	11.1	62
322	Hierarchical unidirectional fluidic solar-electro-thermal evaporator for all-day efficient water purification. Materials Today Sustainability, 2022, 19, 100223.	1.9	3
323	Sustainable Self-Cleaning Evaporators for Highly Efficient Solar Desalination Using a Highly Elastic Sponge-like Hydrogel. ACS Applied Materials & Interfaces, 2022, 14, 36116-36131.	4.0	19
324	Boosting solar-powered interfacial water evaporation by architecting 3D interconnected polymetric network in CNT cellular structure. Chemical Engineering Journal, 2023, 451, 138676.	6.6	32

#	Article	IF	CITATIONS
325	Highly-performance polyimide as an efficient photothermal material for solar-driven water evaporation. Polymer, 2022, 256, 125177.	1.8	8
326	Multi-bioinspired hierarchical Janus membrane for fog harvesting and solar-driven seawater desalination. Desalination, 2022, 540, 115975.	4.0	12
327	Design of poly(3,4-ethylenedioxythiophene): polystyrene sulfonate-polyacrylamide dual network hydrogel for long-term stable, highly efficient solar steam generation. Separation and Purification Technology, 2022, 300, 121889.	3.9	33
328	Molecular architecting of photothermal hydrogels reinforced by polar-porous C2NxO1-x for efficient solar water purification. Desalination, 2022, 541, 116060.	4.0	4
329	Shape-controlled fabrication of MnO/C hybrid nanoparticle from waste polyester for solar evaporation and thermoelectricity generation. Chemical Engineering Journal, 2023, 451, 138534.	6.6	96
330	A highly efficient and durable solar evaporator based on hierarchical ionâ€selective nanostructures. EcoMat, 2023, 5, .	6.8	7
331	2D covalent organic framework-based core-shell structures for high-performance solar-driven steam generation. Materials Today Energy, 2022, 29, 101135.	2.5	5
332	Efficient water purification and desalination using hydrogel and aerogel solar evaporators based on different carbon materials. Separation and Purification Technology, 2022, 301, 122003.	3.9	9
333	Tunable all-in-one bimodal porous membrane of ultrahigh molecular weight polyethylene for solar driven interfacial evaporation. Separation and Purification Technology, 2022, 302, 122071.	3.9	6
334	Multifunctional bio-based photothermal hydrogel for highly efficient seawater desalination and contaminant adsorption. Journal of Environmental Chemical Engineering, 2022, 10, 108616.	3.3	7
335	Plasma-bioresource-derived multifunctional porous NGQD/AuNP nanocomposites for water monitoring and purification. Chemical Engineering Journal, 2023, 451, 139083.	6.6	10
336	Heat-transfer analysis of interfacial solar evaporation and effect of surface wettability on water condensation and collection. International Journal of Thermal Sciences, 2023, 184, 107911.	2.6	5
337	Tunable All-in-One Bimodal Porous Membrane of Ultrahigh Molecular Weight Polyethylene for Highly Efficient Solar-to-Vapor Generation. SSRN Electronic Journal, 0, , .	0.4	0
338	Recent advances in structural regulation and optimization of high-performance solar-driven interfacial evaporation systems. Journal of Materials Chemistry A, 2022, 10, 18509-18541.	5.2	29
339	Robust and multifunctional natural polyphenolic composites for water remediation. Materials Horizons, 2022, 9, 2496-2517.	6.4	59
340	Laser-treated wood for high-efficiency solar thermal steam generation. RSC Advances, 2022, 12, 24861-24867.	1.7	2
341	Hygroscopic polymer gels toward atmospheric moisture exploitations for energy management and freshwater generation. Matter, 2022, 5, 2624-2658.	5.0	20
342	From Materials to Devices: Rationally Designing Solar Steam System for Advanced Applications. Small Methods, 2022, 6, .	4.6	17

#	Article	IF	CITATIONS
343	Confined Shape-Morphing and Dual Hydration Modes for Efficient Solar Steam Generation. ACS Energy Letters, 2022, 7, 3476-3483.	8.8	26
344	Strong tough hydrogel solar evaporator with wood skeleton construction enabling ultraâ€durable brine desalination. EcoMat, 2023, 5, .	6.8	23
345	Polar Bear Hair Inspired Supra-Photothermal Promoted Water Splitting. , 2022, 4, 1912-1920.		2
346	Spongeâ€Supported Reduced Graphene Oxides Enable Synergetic Photothermal and Electrothermal Conversion for Water Purification Coupling Hydrogen Peroxide Production. Solar Rrl, 2022, 6, .	3.1	5
347	Interfacial solar steam generation by wood-based devices to produce drinking water: a review. Environmental Chemistry Letters, 2023, 21, 285-318.	8.3	28
348	Water Harvesting Strategies through Solar Steam Generator Systems. ChemSusChem, 2022, 15, .	3.6	13
349	Plant-Mimetic Vertical-Channel Hydrogels for Synergistic Water Purification and Interfacial Water Evaporation. ACS Applied Materials & Samp; Interfaces, 2022, 14, 45533-45544.	4.0	48
350	Non-Covalent Bond-Regulated Solar Evaporation Modulator: Facilitative Hydration Domains Originated via a Homogeneous Polymeric Network. ACS Applied Materials & Diterfaces, 2022, 14, 46945-46957.	4.0	4
351	Critical aspects to enable viable solar-driven evaporative technologies for water treatment. Nature Communications, 2022, 13, .	5.8	24
352	One-step construction of P(AM-DMDAAC)/GO aerogel evaporator with Janus wettability for stable solar-driven desalination. Separation and Purification Technology, 2022, 303, 122285.	3.9	14
353	Preparation of graphitized carbon-coated glass fiber cloth materials with high mechanical strength, corrosion resistance, and solar-driven water evaporation performance. Solar Energy Materials and Solar Cells, 2022, 248, 112015.	3.0	5
354	Extremely black carbon nanotube materials with three-dimensional networks for highly efficient solar-driven vapor generation. Nanoscale, 2022, 14, 17438-17446.	2.8	7
355	A Waveâ€Driven Piezoelectrical Film for Interfacial Steam Generation: Beyond the Limitation of Hydrogel. Advanced Science, 2022, 9, .	5.6	11
356	Fully Lignocellulosic Biomassâ€Based Doubleâ€Layered Porous Hydrogel for Efficient Solar Steam Generation. Advanced Functional Materials, 2022, 32, .	7.8	89
357	Fabrication of a Highly Efficient Wood-Based Solar Interfacial Evaporator with Self-Desalting and Sterilization Performance. Langmuir, 2022, 38, 12813-12821.	1.6	4
358	Engineered Wood with Hierarchically Tunable Microchannels toward Efficient Solar Vapor Generation. Langmuir, 2022, 38, 12773-12784.	1.6	6
359	A Simple and Efficient Solar Interfacial Evaporation Device Based on Carbonized Cattail and Agarose Hydrogel for Water Evaporation and Purification. Membranes, 2022, 12, 1076.	1.4	3
360	A bionic solar-driven interfacial evaporation system with a photothermal-photocatalytic hydrogel for VOC removal during solar distillation. Water Research, 2022, 226, 119276.	5. 3	24

#	Article	IF	CITATIONS
361	Polydopamine-assisted load of palygorskite on polyester fabric for moisture absorption and perspiration. Applied Clay Science, 2022, 230, 106720.	2.6	4
362	Architecting Janus hydrogel evaporator with polydopamine-TiO2 photocatalyst for high-efficient solar desalination and purification. Separation and Purification Technology, 2023, 304, 122403.	3.9	26
363	Catalysis-involved 3D N-doped graphene aerogel achieves a superior solar water purification rate and efficiency. Chemical Engineering Journal, 2023, 453, 139793.	6.6	21
364	Reduced graphene oxide/carbon nitride composite sponge for interfacial solar water evaporation and wastewater treatment. Chemosphere, 2023, 311, 137163.	4.2	16
365	Odd–even effect on the thermal conductivity of liquid crystalline epoxy resins. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	5
366	Hofmeister Effectâ€Enhanced Hydration Chemistry of Hydrogel for Highâ€Efficiency Solarâ€Driven Interfacial Desalination. Advanced Materials, 2023, 35, .	11.1	57
367	Rapid Gelation of Tough and Antiâ€Swelling Hydrogels under Mild Conditions for Underwater Communication. Advanced Functional Materials, 2023, 33, .	7.8	60
368	A customized kinetic energy harvesting system with multilayer piezoelectric membrane for solar interfacial vapor generation. Nano Energy, 2022, 104, 107996.	8.2	5
369	Injectable polylysine and dextran hydrogels with robust antibacterial and ROS-scavenging activity for wound healing. International Journal of Biological Macromolecules, 2022, 223, 950-960.	3.6	12
370	Advanced phase change hydrogel integrating metal-organic framework for self-powered thermal management. Nano Energy, 2023, 105, 108009.	8.2	13
371	Interface engineering of amorphous boron for high-efficiency interfacial solar steam generation. New Journal of Chemistry, 0, , .	1.4	0
372	A non-covalent supramolecular dual-network polyelectrolyte evaporator based on direct-ink-writing for stable solar thermal evaporation. Materials Advances, 2023, 4, 223-230.	2.6	1
373	Janus carbon nanotube sponges for highly efficient solar-driven vapor generation. Chemical Engineering Journal, 2023, 454, 140501.	6.6	21
374	Magnetic field assisted synthesis of JANUS Fe3C@ Enteromorpha doped graphene aerogels for simultaneous recovery of fresh water and salt in high salinity wastewater. Separation and Purification Technology, 2023, 308, 122845.	3.9	3
375	State-of-the-art insights on applications of hydrogel membranes in water and wastewater treatment. Separation and Purification Technology, 2023, 308, 122948.	3.9	10
376	Flexible plasmonic cellulose papers for broadband absorption and efficient solar steam generation. Science China Materials, 2023, 66, 1097-1105.	3.5	5
377	A highly efficient bio-inspired 3D solar-driven evaporator with advanced heat management and salt fouling resistance design. Chemical Engineering Journal, 2023, 455, 140500.	6.6	11
378	Emerging Materials for Interfacial Solarâ€Driven Water Purification. Angewandte Chemie, 2023, 135, .	1.6	3

#	Article	IF	CITATIONS
379	Emerging Materials for Interfacial Solarâ€Driven Water Purification. Angewandte Chemie - International Edition, 2023, 62, .	7.2	19
380	Cellulose-Based Photothermal Microspheres: A Sustainable Solution to Harvesting Freshwater Outdoor. ACS Sustainable Chemistry and Engineering, 2023, 11, 256-266.	3.2	3
381	High-Performance Janus Solar Evaporator for Water Purification with Broad Spectrum Absorption and Ultralow Heat Loss. ACS Energy Letters, 2023, 8, 553-564.	8.8	27
382	Decentralized Solar-Driven Photothermal Desalination: An Interdisciplinary Challenge to Transition Lab-Scale Research to Off-Grid Applications. ACS Photonics, 2022, 9, 3764-3776.	3.2	5
383	Engineering Materials to Enhance Light-to-Heat Conversion for Efficient Solar Water Purification. Industrial & Engineering Chemistry Research, 2022, 61, 17783-17800.	1.8	8
384	Amphiphilically Modified Porous Polymeric Nanosandwichâ€Based Membranes for Rapid and Efficient Water Treatment. Small, 0, , 2205714.	5.2	0
385	Sustainable Hierarchical-Pored PAAS–PNIPAAm Hydrogel with Core–Shell Structure Tailored for Highly Efficient Atmospheric Water Harvesting. ACS Applied Materials & 1, 11, 11, 12, 14, 15, 16, 17, 18, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19	4.0	21
386	Highly conductive and tough doubleâ€network hydrogels for smart electronics. SmartMat, 0, , .	6.4	6
387	Wormlike Perovskite Oxide Coupled with Phaseâ€Change Material for Allâ€Weather Solar Evaporation and Thermal Storage Applications. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	30
388	Advanced Material Design and Engineering for Waterâ€Based Evaporative Cooling. Advanced Materials, 2024, 36, .	11.1	10
389	Humidity capture and solar-driven water collection behaviors of alginate-g-PNIPAm-based hydrogel. Journal of Environmental Chemical Engineering, 2023, 11, 109247.	3.3	8
390	Hydrophilic candle wastes microcapsules as a thermal energy storage material for all-day steam and electricity cogeneration. Desalination, 2023, 550, 116377.	4.0	20
391	Advances in flexible hydrogels for light-thermal-electricity energy conversion and storage. Journal of Energy Storage, 2023, 60, 106618.	3.9	7
392	The coralâ€inspired steam evaporator for efficient solar desalination via porous and thermal insulation bionic design. SmartMat, 2023, 4, .	6.4	9
393	Biochar-Based Photothermal Hydrogel for Efficient Solar Water Purification. Molecules, 2023, 28, 1157.	1.7	2
394	A universal strategy for large-scale and controlled fabrication of conductive mesoporous polymer monolayers. Chemical Engineering Journal, 2023, 460, 141504.	6.6	0
395	Solar Interfacial Evaporation at the Water–Energy Nexus: Bottlenecks, Approaches, and Opportunities. Solar Rrl, 2023, 7, .	3.1	2
396	Liquefiedâ€chitin polyurethane foam construction of highâ€efficiency solar evaporator for seawater purification. Journal of Applied Polymer Science, 2023, 140, .	1.3	4

#	Article	IF	CITATIONS
397	A siphon-based spatial evaporation device for efficient salt-free interfacial steam generation. Desalination, 2023, 552, 116442.	4.0	12
398	Phase Inversion-Based foam hydrogels for highly efficient Solar-Powered interfacial desalination. Chemical Engineering Journal, 2023, 464, 142409.	6.6	10
399	A magnetic nanostructure PAC@Fe3O4 driven design toward Janus hydrogel achieves highly efficient solar water evaporation. Chemical Engineering Journal, 2023, 465, 142944.	6.6	4
400	Highly interconnected sponge with optimized water absorption and thermal conductivity for efficient solar desalination. Separation and Purification Technology, 2023, 314, 123502.	3.9	7
401	Hofmeister effect assists in improving solar vapor generation via tuning configuration of water and polymer chains. Desalination, 2023, 555, 116550.	4.0	2
402	A portable high-performance self-insulated solar evaporator based on wooden sponge for seawater desalination and wastewater purification. Desalination, 2023, 556, 116549.	4.0	5
403	Architecting Janus hydrogel-fabric coupled evaporator for eliminating salt accumulation and highly efficient solar-driven brine desalination. Desalination, 2023, 556, 116567.	4.0	15
404	Enhanced interfacial solar driven water evaporation performance of Ti mesh through growing TiO2 nanotube and applying voltage. Separation and Purification Technology, 2023, 314, 123633.	3.9	0
405	Evaporator fabricated with accessible photothermal material derived from waste fallen leaves for highly efficient desalination. Applied Surface Science, 2023, 619, 156728.	3.1	9
406	Weakening the hydrogen bonds with ~3ÂÎ⅓m fluorescence for enhanced solar water evaporation. Desalination, 2023, 557, 116599.	4.0	0
407	Hierarchically designed evaporators with dual-layered hydrogel/aerogel structure for efficient solar water evaporation. Separation and Purification Technology, 2023, 310, 123237.	3.9	7
408	Multifunctional Photoabsorber for Highly Efficient Interfacial Solar Steam Generation and Wastewater Treatment. ChemistrySelect, 2023, 8, .	0.7	22
409	Hybrid assembly of polymeric nanofiber network for robust and electronically conductive hydrogels. Nature Communications, 2023, 14, .	5.8	45
410	Recent advances in interfacial solar vapor generation: clean water production and beyond. Journal of Materials Chemistry A, 2023, 11, 5978-6015.	5.2	19
411	An integrated cellulose aerogel evaporator with improved thermal management and reduced enthalpy of evaporation using a hierarchical coordinated control strategy. Journal of Materials Chemistry A, 2023, 11, 6248-6257.	5.2	9
412	Advances in harvesting water and energy from ubiquitous atmospheric moisture. Journal of Materials Chemistry A, 2023, 11, 12456-12481.	5.2	13
413	Bioinspired Aerogel with Vertically Ordered Channels and Low Water Evaporation Enthalpy for Highâ€Efficiency Saltâ€Rejecting Solar Seawater Desalination and Wastewater Purification. Small, 2023, 19, .	5.2	32
414	Dual-hydrophilic Janus evaporator for Long-term and efficient Bimode solar evaporation. Chemical Engineering Journal, 2023, 461, 141954.	6.6	12

#	Article	IF	CITATIONS
415	Spontaneously super-hygroscopic MOF-gel microreactors for efficient detoxification of nerve agent simulant in atmospheric environments. Applied Catalysis B: Environmental, 2023, 328, 122516.	10.8	7
416	Preparation of carbon nanotube/cellulose hydrogel composites and their uses in interfacial solar-powered water evaporation. New Carbon Materials, 2023, 38, 162-172.	2.9	7
417	Threeâ€Dimensional Coffeeâ€Ring Effect Induced Deposition on Foam Surface for Enhanced Photothermal Conversion. Small, 2023, 19, .	5.2	3
418	A polyelectrolyte hydrogel coated loofah sponge evaporator based on Donnan effect for highly efficient solar-driven desalination. Chemical Engineering Journal, 2023, 462, 142265.	6.6	19
419	Recent strategies for constructing efficient interfacial solar evaporation systems. , 2023, 2, e9120062.		44
420	Preparation and Study of Polyvinyl Alcohol Gel Structures with Acrylamide and 2-Acrylamido-2-methyl-1-propanesulfonic Acid for Application in Saline Oil Reservoirs for Profile Modification. ACS Applied Materials & Samp; Interfaces, 0, , .	4.0	2
421	Atmospheric Water Generator Technologies. Water Science and Technology Library, 2023, , 1-13.	0.2	0
422	Bioinspired Nanofibrous Aerogel with Vertically Aligned Channels for Efficient Water Purification and Saltâ€Rejecting Solar Desalination. Advanced Functional Materials, 2023, 33, .	7.8	38
423	A Bionicâ€Gill 3D Hydrogel Evaporator with Multidirectional Crossflow Salt Mitigation and Aquaculture Applications. Advanced Functional Materials, 2023, 33, .	7.8	11
424	2D MoN _{1.2} â€rGO Stacked Heterostructures Enabled Water State Modification for Highly Efficient Interfacial Solar Evaporation. Advanced Functional Materials, 2023, 33, .	7.8	57
425	Aerogels Based on MXene Nanosheet/Reduced Graphene Oxide Composites with Vertically Aligned Channel Structures for Solar-Driven Vapor Generation. ACS Applied Nano Materials, 2023, 6, 4455-4464.	2.4	4
426	Formation, evolution, and enhancement mechanisms of mixed temperature gradient during interfacial solar vapor generation. International Journal of Heat and Mass Transfer, 2023, 208, 124082.	2.5	3
427	Nano-enabled solar driven-interfacial evaporation: Advanced design and opportunities. Nano Research, 2023, 16, 6015-6038.	5.8	24
428	Hydrogel-based solar-driven interfacial evaporation: Current progress and future challenges. , 2023, 1, 100011.		2
429	Photothermal–Photocatalytic CSG@ZFG Evaporator for Synergistic Salt Rejection and VOC Removal during Solar-Driven Water Distillation. Langmuir, 2023, 39, 4651-4661.	1.6	2
430	lon engines in hydrogels boosting hydrovoltaic electricity generation. Energy and Environmental Science, 2023, 16, 2494-2504.	15.6	9
431	Photocorrosion-Based BiOCl Photothermal Materials for Synergistic Solar-Driven Desalination and Photoelectrochemistry Energy Storage and Release. ACS Applied Materials & Diterfaces, 2023, 15, 17947-17956.	4.0	6
432	Water Skin Effect and Arched Doubleâ€Sided Evaporation for Boosting Allâ€Weather High Salinity Desalination. Advanced Energy Materials, 2023, 13, .	10.2	26

#	Article	IF	CITATIONS
433	An extreme condition-resistant superelastic silica nanofiber/MXene composite aerogel for synchronous sensing and thermal management. Journal of Materials Chemistry A, 2023, 11, 10396-10412.	5.2	5
434	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
435	A Lotusâ€Petioleâ€Inspired Hierarchical Design with Hydrophilic/Hydrophobic Management for Enhanced Solar Water Purification. Advanced Functional Materials, 2023, 33, .	7.8	12
462	A review of membrane distillation enhancement via thermal management and molecular transport through nanomaterial-based membranes. Science China Technological Sciences, 2023, 66, 1662-1682.	2.0	1
487	Advances in photothermal regulation strategies: from efficient solar heating to daytime passive cooling. Chemical Society Reviews, 2023, 52, 7389-7460.	18.7	9
564	Preparation and Application of Hydrogel Materials for Interfacial Solar Vapor Generation. Lecture Notes in Electrical Engineering, 2024, , 413-417.	0.3	0
578	Updated perspective on solar steam generation application. Energy and Environmental Science, 2024, 17, 2088-2099.	15.6	0