

CITATION REPORT

List of articles citing

Water-evaporation-induced electricity with nanostructured carbon materials

DOI: 10.1038/nnano.2016.300

Nature Nanotechnology, 2017, 12, 317-321.

Source: <https://exaly.com/paper-pdf/65950331/citation-report.pdf>

Version: 2024-04-27

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
573	High-Performance MagnesiumCarbon Nanofiber Hygroelectric Generator Based on Interface-Mediation-Enhanced Capacitive Discharging Effect.		
572	Nanoparticle patterning for biomedicine. 2016 , 6, 183-185		2
571	Robust and Low-Cost Flame-Treated Wood for High-Performance Solar Steam Generation. 2017 , 9, 15052-15055	5.9	
570	Reviving Vibration Energy Harvesting and Self-Powered Sensing by a Triboelectric Nanogenerator. 2017 , 1, 480-521		487
569	Potential for natural evaporation as a reliable renewable energy resource. 2017 , 8, 617		91
568	Highly Efficient Moisture-Triggered Nanogenerator Based on Graphene Quantum Dots. 2017 , 9, 38170-38175	54	
567	Ultra-fast vapor generation by a graphene nano-ratchet: a theoretical and simulation study. 2017 , 9, 19066-19072	32	
566	A One-Dimensional Fluidic Nanogenerator with a High Power Conversion Efficiency. 2017 , 56, 12940-12945	74	
565	A One-Dimensional Fluidic Nanogenerator with a High Power Conversion Efficiency. 2017 , 129, 13120-13125	8	
564	Graphene oxide-based evaporator with one-dimensional water transport enabling high-efficiency solar desalination. 2017 , 41, 201-209		226
563	New trends, strategies and opportunities in thermoelectric materials: A perspective. 2017 , 1, 50-60		220
562	Solar-driven simultaneous steam production and electricity generation from salinity. 2017 , 10, 1923-1927		268
561	Analysis on characteristics of contact-area-dependent electric energy induced by ion sorption at solid-liquid interface. 2017 , 42, 257-261		11
560	The physics and chemistry of graphene-on-surfaces. 2017 , 46, 4417-4449		247
559	Harvesting energy from low-frequency excitations through alternate contacts between water and two dielectric materials. 2017 , 7, 17145		16
558	Structure and Dynamics of Water at Carbon-Based Interfaces. 2017 , 19, 135		10
557	Electricity generation from water droplets via capillary infiltrating. 2018 , 48, 211-216		53

556	Commercially Available Activated Carbon Fiber Felt Enables Efficient Solar Steam Generation. 2018 , 10, 9362-9368	121
555	Electric Power Generation through the Direct Interaction of Pristine Graphene-Oxide with Water Molecules. 2018 , 14, e1704473	73
554	Hydroelectric power plant on a paper strip. 2018 , 18, 1560-1568	22
553	Electric power generation via asymmetric moisturizing of graphene oxide for flexible, printable and portable electronics. 2018 , 11, 1730-1735	115
552	Thermionic emission via a nanofluid for direct electrification from low-grade heat energy. 2018 , 49, 172-178	11
551	Phase Diagram of Water Confined by Graphene. 2018 , 8, 6228	38
550	Self-Powered Wearable Electronics Based on Moisture Enabled Electricity Generation. 2018 , 30, e1705925	113
549	Carbon-Electrode-Tailored All-Inorganic Perovskite Solar Cells To Harvest Solar and Water-Vapor Energy. 2018 , 57, 5746-5749	95
548	Aerosol-assisted synthesis of submicron particles at room temperature using ultra-fine liquid atomization. 2018 , 346, 606-620	16
547	Gradient doped polymer nanowire for moistelectric nanogenerator. 2018 , 46, 297-304	49
546	Electrokinetic Supercapacitor for Simultaneous Harvesting and Storage of Mechanical Energy. 2018 , 10, 8010-8015	21
545	Integrating a Silicon Solar Cell with a Triboelectric Nanogenerator via a Mutual Electrode for Harvesting Energy from Sunlight and Raindrops. 2018 , 12, 2893-2899	155
544	Liquid phase mass production of air-stable black phosphorus/phospholipids nanocomposite with ultralow tunneling barrier. 2018 , 5, 025012	4
543	Self-Contained Monolithic Carbon Sponges for Solar-Driven Interfacial Water Evaporation Distillation and Electricity Generation. 2018 , 8, 1702149	312
542	Divergent effect of electric fields on the mechanical property of water-filled carbon nanotubes with an application as a nanoscale trigger. 2018 , 29, 025707	2
541	ThermalElectric Nanogenerator Based on the Electrokinetic Effect in Porous Carbon Film. 2018 , 8, 1702481	76
540	Electrical current nanogeneration driven by spontaneous nanofluidic oscillations. 2018 , 10, 3144-3147	4
539	Ion Specificity on Electric Energy Generated by Flowing Water Droplets. 2018 , 57, 2091-2095	37

538	Graphene Platforms for Smart Energy Generation and Storage. 2018 , 2, 245-268	124
537	Ion Specificity on Electric Energy Generated by Flowing Water Droplets. 2018 , 130, 2113-2117	4
536	Generating Electricity from Water through Carbon Nanomaterials. 2018 , 24, 6287-6294	39
535	Controllable and large-scale fabrication of rectangular CuS network films for indium tin oxide-and Pt-free flexible dye-sensitized solar cells. 2018 , 179, 297-304	22
534	Cold Vapor Generation beyond the Input Solar Energy Limit. 2018 , 5, 1800222	150
533	Networks of High Performance Triboelectric Nanogenerators Based on Liquid-Solid Interface Contact Electrification for Harvesting Low-Frequency Blue Energy. 2018 , 8, 1800705	104
532	Micro- and nano-mechanics in China: A brief review of recent progress and perspectives. 2018 , 61, 1	23
531	Carbon-Electrode-Tailored All-Inorganic Perovskite Solar Cells To Harvest Solar and Water-Vapor Energy. 2018 , 130, 5848-5851	17
530	Conversion of solar power to chemical energy based on carbon nanoparticle modified photo-thermoelectric generator and electrochemical water splitting system. 2018 , 48, 481-488	59
529	Tuning capillary penetration in porous media: Combining geometrical and evaporation effects. 2018 , 123, 239-250	20
528	Electricity generation across graphene oxide membranes. 2018 , 97, 96-100	18
527	Wood-Based Nanotechnologies toward Sustainability. 2018 , 30, 1703453	229
526	High-Performance Solar Steam Device with Layered Channels: Artificial Tree with a Reversed Design. 2018 , 8, 1701616	174
525	. 2018 ,	2
524	Synthesis of mesoporous Fe ₃ Si aerogel as a photo-thermal material for highly efficient and stable corrosive-water evaporation. 2018 , 6, 23263-23269	17
523	A Broadband Phototransistor Based on Three-Dimensional Reduced Graphene Oxide Foam. 2018 , 8,	3
522	Emerging hydrovoltaic technology. <i>Nature Nanotechnology</i> , 2018 , 13, 1109-1119	28.7 197
521	More power from water. <i>Nature Nanotechnology</i> , 2018 , 13, 1087	28.7 4

520	Deploying effectively dispatchable PV on reservoirs: Comparing floating PV to other renewable technologies. 2018 , 174, 837-847	32
519	Liquid-Vapor Phase-Change Heat Transfer on Functionalized Nanowired Surfaces and Beyond. 2018 , 2, 2307-2347	86
518	The Interaction between Quantum Dots and Graphene: The Applications in Graphene-Based Solar Cells and Photodetectors. 2018 , 28, 1804712	50
517	Wearable fiberform hygroelectric generator. 2018 , 53, 698-705	35
516	Hydrocapacitor for Harvesting and Storing Energy from Water Movement. 2018 , 10, 35273-35280	16
515	Interfacial Solar Steam Generation Enables Fast-Responsive, Energy-Efficient, and Low-Cost Off-Grid Sterilization. 2018 , 30, e1805159	146
514	Interface-mediated hygroelectric generator with an output voltage approaching 1.5 volts. 2018 , 9, 4166	90
513	Direct Electricity Generation Mediated by Molecular Interactions with Low Dimensional Carbon Materials: A Mechanistic Perspective. 2018 , 8, 1802212	26
512	Solar-driven interfacial evaporation. 2018 , 3, 1031-1041	715
511	The influence of container geometry and thermal conductivity on evaporation of water at low pressures. 2018 , 8, 15121	8
510	Metal and Alloy for CE Catalysts in Dye-Sensitized Solar Cells. 2018 , 47-69	2
509	Flexible and portable graphene on carbon cloth as a power generator for electricity generation. 2018 , 140, 488-493	36
508	Blue energy harvesting on nanostructured carbon materials. 2018 , 6, 18357-18377	43
507	High- k Gate Dielectrics for Emerging Flexible and Stretchable Electronics. 2018 , 118, 5690-5754	354
506	Oxygen-rich carbon nanotube networks for enhanced lithium metal anode. 2018 , 15, 308-314	72
505	Multiresponsive Kinematics and Robotics of Surface-Patterned Polymer Film. 2018 , 10, 19123-19132	27
504	Capillary-driven liquid film boiling heat transfer on hybrid mesh wicking structures. 2018 , 51, 373-382	55
503	Self-Cleaning Porous Surfaces for Dry Condensation. 2018 , 10, 26759-26764	17

502	Spontaneous power source in ambient air of a well-directionally reduced graphene oxide bulk. 2018 , 11, 2839-2845	58
501	Transparency in graphene mediated evaporation. 2018 , 5, 041001	8
500	Ultrahigh charge density realized by charge pumping at ambient conditions for triboelectric nanogenerators. 2018 , 49, 625-633	159
499	Surrounding effects on the evaporation efficiency of a bi-layered structure for solar steam generation. 2018 , 144, 331-341	12
498	In-built thermo-mechanical cooperative feedback mechanism for self-propelled multimodal locomotion and electricity generation. 2018 , 9, 3438	71
497	Solar absorber material and system designs for photothermal water vaporization towards clean water and energy production. 2019 , 12, 841-864	709
496	Large-Scale Production of Flexible, High-Voltage Hydroelectric Films Based on Solid Oxides. 2019 , 11, 30927-30935	36
495	A wrinkled graphene and ionic liquid based electric generator for the sea energy harvesting. 2019 , 6, 045040	4
494	Structure and dynamic properties of stretched water in graphene nanochannels by molecular dynamics simulation: effects of stretching extent. 2019 , 21, 19163-19171	10
493	A mechanically durable, sustained corrosion-resistant photothermal nanofiber membrane for highly efficient solar distillation. 2019 , 7, 22296-22306	29
492	Solar thermal utilizations revived by advanced solar evaporation. 2019 , 25, 26-34	11
491	Overview of Flexible and Stretchable Approaches. 2019 , 95-111	
490	Energy from the Nanofluidic Transport of Water through Nanochannels between Packed Silica Spheres. 2019 , 2, 5850-5856	11
489	High-efficiency power generation in hyper-saline environment using conventional nanoporous membrane. 2019 , 319, 366-374	7
488	Direct Fabrication of a Moisture-Driven Power Generator by Laser-Induced Graphitization with a Gradual Defocusing Method. 2019 , 11, 26970-26975	17
487	A self-powered stretchable sensor fabricated by serpentine PVDF film for multiple dynamic monitoring. 2019 , 182, 108025	22
486	Moisture-Driven Power Generation for Multifunctional Flexible Sensing Systems. 2019 , 19, 5544-5552	39
485	Electromagnetic field decomposition model for understanding solar energy absorption in multi-nanoparticle systems. 2019 , 236, 106588	4

484	A water-evaporation-induced self-charging hybrid power unit for application in the Internet of Things. 2019 , 64, 1409-1417	27
483	Transpiration Driven Electrokinetic Power Generator. 2019 , 13, 12703-12709	52
482	Development and Evolution of the System Structure for Highly Efficient Solar Steam Generation from Zero to Three Dimensions. 2019 , 29, 1903255	137
481	Enhanced Photothermal Conversion by Hot-Electron Effect in Ultrablack Carbon Aerogel for Solar Steam Generation. 2019 , 11, 42057-42065	58
480	High-quality ultralong copper sulphide nanowires for promising applications in high efficiency solar water evaporation. 2019 , 3, 394-398	19
479	Ultra-black carbon@silica core-shell aerogels with controllable electrical conductivities. 2019 , 2, 743-752	19
478	Water-Electrokinetic Power Generation Device using Flexible Woody Carbon Film. 2019 ,	1
477	Study of Charge Distributions and Electrical Properties in GaAs/AlGaAs Single Quantum Well/Nanowire Heterostructures. 2019 , 123, 26888-26894	5
476	Electricity Generation from Capillary-Driven Ionic Solution Flow in a Three-Dimensional Graphene Membrane. 2019 , 11, 4922-4929	28
475	A Method to Calculate the Capacity of Unsignalized Intersection for Connected and Automated Vehicles Based on Gap Acceptance Theory. 2019 ,	1
474	Electric power generation using paper materials. 2019 , 7, 20574-20578	37
473	Natural Evaporation-Driven Ionovoltaic Electricity Generation. 2019 , 1, 1746-1751	19
472	Flexible graphene oxide/mixed cellulose ester films for electricity generation and solar desalination. 2019 , 163, 114322	16
471	Mass production of superhydrophilic sponges for efficient and stable solar-driven highly corrosive water evaporation. 2019 , 5, 2041-2047	5
470	Electrical Power Generation from Wet Textile Mediated by Spontaneous Nanoscale Evaporation. 2019 , 19, 7191-7200	31
469	Vibration-to-Electric Energy Conversion via Electric Double Layer Redistribution of Graphene-Nickel Foam Electrode. 2019 , 166, A3280-A3286	1
468	Giant Thermoelectric Response of Nanofluidic Systems Driven by Water Excess Enthalpy. 2019 , 123, 138001	13
467	Liquid flow-induced electricity in carbon nanomaterials. 2019 , 3, 599-610	15

466	Photo-induced charge boosting of liquid-solid electrokinetic generators for efficient wave energy harvesting. 2019 , 7, 5373-5380	9
465	Water flow modeling through a graphene-based nanochannel: theory and simulation. 2019 , 21, 3304-3309	18
464	Surface functional modification boosts the output of an evaporation-driven water flow nanogenerator. 2019 , 58, 797-802	63
463	A revolution of photovoltaics: persistent electricity generation beyond solar irradiation. 2019 , 48, 799-805	10
462	A super compact self-powered device based on paper-like supercapacitors. 2019 , 7, 3642-3647	16
461	Investigation on Resistivity-Dependent Behavior of Carbon-Composite-Based Paintable Ionovoltaic Device. 2019 , 1, 1059-1064	2
460	A new carbon-black/cellulose-sponge system with water supplied by injection for enhancing solar vapor generation. 2019 , 7, 17954-17965	47
459	Conduction and Excess Charge in Silicate Glass/Air Interfaces. 2019 , 35, 7703-7712	5
458	A Filter Paper-Based Nanogenerator via Water-Drop Flow. 2019 , 3, 1900012	9
457	Resistive switching memory integrated with amorphous carbon-based nanogenerators for self-powered device. 2019 , 63, 103793	77
456	Biological Nanofibrous Generator for Electricity Harvest from Moist Air Flow. 2019 , 29, 1901798	56
455	Power generation from the interaction of a liquid droplet and a liquid membrane. 2019 , 10, 2264	159
454	All-region-applicable, continuous power supply of graphene oxide composite. 2019 , 12, 1848-1856	53
453	Efficient Interfacial Solar Steam Generator with Controlled Macromorphology Derived from Flour via Dough Figurine Technology. 2019 , 7, 1900406	21
452	A non-covalent cation- π interaction-based humidity-driven electric nanogenerator prepared with salt decorated wrinkled graphene. 2019 , 62, 189-196	14
451	Introduction to Advanced Micro-Nano Coating Materials and Thermal Spray. 2019 , 1-11	3
450	Low-cost carbonized kelp for highly efficient solar steam generation. 2019 , 9, 055110	23
449	Progress in Triboelectric Materials: Toward High Performance and Widespread Applications. 2019 , 29, 1900098	93

448	Harvesting environment energy from water-evaporation over free-standing graphene oxide sponges. 2019 , 148, 1-8	39
447	A self-powered flexibly-arranged gas monitoring system with evaporating rainwater as fuel for building atmosphere big data. 2019 , 60, 52-60	40
446	Mechanochemical transduction and hygroelectricity in periodically stretched rubber. 2019 , 171, 173-179	10
445	Power generation from graphene-water interactions. 2019 , 14, 100090	17
444	SLIPS-TENG: robust triboelectric nanogenerator with optical and charge transparency using a slippery interface. 2019 , 6, 540-550	54
443	Recent Progress in Power Generation from Water/Liquid Droplet Interaction with Solid Surfaces. 2019 , 29, 1901069	92
442	A moisture induced self-charging device for energy harvesting and storage. 2019 , 60, 371-376	29
441	Ultrafast Diameter-Dependent Water Evaporation from Nanopores. 2019 , 13, 3363-3372	41
440	A self-powered wearable sweat-evaporation-biosensing analyzer for building sports big data. 2019 , 59, 754-761	75
439	Waving potential at volt level by a pair of graphene sheets. 2019 , 60, 656-660	21
438	Self-powered intelligent buoy system by water wave energy for sustainable and autonomous wireless sensing and data transmission. 2019 , 61, 1-9	83
437	Hybrid Energy Harvesters: Toward Sustainable Energy Harvesting. 2019 , 31, e1802898	114
436	Performance optimization of bi-layer solar steam generation system through tuning porosity of bottom layer. 2019 , 239, 504-513	45
435	Challenges and Opportunities for Solar Evaporation. 2019 , 3, 683-718	420
434	Intelligent multiple-liquid evaporation power generation platform using distinctive Jaboticaba-like carbon nanosphere@TiO ₂ nanowires. 2019 , 7, 6766-6772	40
433	An open thermo-electrochemical cell enabled by interfacial evaporation. 2019 , 7, 6514-6521	27
432	An efficient polymer moist-electric generator. 2019 , 12, 972-978	80
431	Electrical Power Generation from the Contrasting Interfacial Activities of Boron- and Nitrogen-Doped Reduced Graphene Oxide Membranes. 2019 , 2, 7997-8004	1

430	A nanopump for low-temperature and efficient solar water evaporation. 2019 , 7, 24311-24319	25
429	Electricity generation from a Ni-Al layered double hydroxide-based flexible generator driven by natural water evaporation. 2019 , 57, 269-278	64
428	Textile-Based Triboelectric Nanogenerators for Self-Powered Wearable Electronics. 2019 , 29, 1804533	103
427	Fast-Growing Field of Interfacial Solar Steam Generation: Evolutional Materials, Engineered Architectures, and Synergistic Applications. 2019 , 3, 1800206	76
426	Energy harvesting techniques mediated by molecular interactions with nanostructured carbon materials. 2019 , 389-424	1
425	Functionalized carbon materials for efficient solar steam and electricity generation. 2019 , 222, 159-164	30
424	Fiber-Based Energy Conversion Devices for Human-Body Energy Harvesting. 2020 , 32, e1902034	120
423	A teeterboard-like hybrid nanogenerator for efficient harvesting of low-frequency ocean wave energy. 2020 , 67, 104205	36
422	Deep-NFVOrch: leveraging deep reinforcement learning to achieve adaptive vNF service chaining in DCI-EONs. 2020 , 12, A18	19
421	Analysis of precipitation changes and its possible reasons in Songhua River Basin of China. 2020 , 11, 839-864	9
420	Conversion of low-grade heat via thermal-evaporation-induced electricity generation on nanostructured carbon films. 2020 , 166, 114623	7
419	All day Limnobium laevigatum inspired nanogenerator self-driven via water evaporation. 2020 , 448, 227388	49
418	Carbon nitride nanotube for ion transport based photo-rechargeable electric energy storage. 2020 , 67, 104230	30
417	Exploring Anomalous Fluid Behavior at the Nanoscale: Direct Visualization and Quantification via Nanofluidic Devices. 2020 , 53, 347-357	25
416	Self-operating transpiration-driven electrokinetic power generator with an artificial hydrological cycle. 2020 , 13, 527-534	45
415	Solar evaporation for simultaneous steam and power generation. 2020 , 8, 513-531	65
414	A Self-Powered Nanogenerator for the Electrical Protection of Integrated Circuits from Trace Amounts of Liquid. 2019 , 12, 5	9
413	Bio-inspired Nanocomposite Membranes for Osmotic Energy Harvesting. 2020 , 4, 247-261	78

412	Exploring interface confined water flow and evaporation enables solar-thermal-electro integration towards clean water and electricity harvest via asymmetric functionalization strategy. 2020 , 68, 104385	51
411	Polyoxometalate film simultaneously converts multiple low-value all-weather environmental energy to electricity. 2020 , 68, 104349	11
410	Exhaling-Driven Hydroelectric Nanogenerators for Stand-Alone Nonmechanical Breath Analyzing. 2020 , 5, 1900819	14
409	Recent advances and challenges for solar-driven water evaporation system toward applications. 2020 , 68, 104324	135
408	A flexible electrokinetic power generator derived from paper and ink for wearable electronics. 2020 , 279, 115764	8
407	Fusion of Slippery Interfaces and Transistor-Inspired Architecture for Water Kinetic Energy Harvesting. 2020 , 4, 2527-2531	28
406	Investigating the validity of Schrage relationships for water using molecular dynamics simulations. 2020 , 153, 124505	8
405	Output density quantification of electricity generation by flowing deionized water on graphene. 2020 , 117, 123905	1
404	Guaranteeing Complete Salt Rejection by Channeling Saline Water through Fluidic Photothermal Structure toward Synergistic Zero Energy Clean Water Production and In Situ Energy Generation. 2020 , 5, 3397-3404	50
403	Regulation and influence factors of triboelectricity at the solid-liquid interface. 2020 , 78, 105370	24
402	Ultralight PEDOT:PSS/graphene oxide composite aerogel sponges for electric power harvesting from thermal fluctuations and moist environment. 2020 , 77, 105096	13
401	High Efficiency Solar Membranes Structurally Designed with 3D Core-2D Shell SiO@Amino-Carbon Hybrid Advanced Composite for Facile Steam Generation. 2020 , 12, 35493-35501	18
400	Self-powered humidity sensor based on polypyrrole modified melamine aerogel. 2020 , 277, 128281	4
399	Controlled heterogeneous water distribution and evaporation towards enhanced photothermal water-electricity-hydrogen production. 2020 , 77, 105102	79
398	Ionic spiderwebs. 2020 , 5,	20
397	Electron Transfer as a Liquid Droplet Contacting a Polymer Surface. 2020 ,	55
396	High-Performance Tubular Electricity Generators Operated by Magnetically Driving Movement of Droplet. 2020 , 7, 2001592	1
395	Recent advances in solar-driven evaporation systems. 2020 , 8, 25571-25600	28

394	Moisture-Enabled Electricity Generation: From Physics and Materials to Self-Powered Applications. 2020 , 32, e2003722	46
393	Rational Design of MOF-Based Hybrid Nanomaterials for Directly Harvesting Electric Energy from Water Evaporation. 2020 , 32, e2003720	38
392	Hydrovoltaic Energy on the Way. 2020 , 4, 1852-1855	31
391	Adjusting Channel Size within PVA-Based Hydrogels via Ice Templating for Enhanced Solar Steam Generation. 2020 , 3, 9216-9225	11
390	Multifunctional Protein Nanowire Humidity Sensors for Green Wearable Electronics. 2020 , 6, 2000721	19
389	Engineering Graphene Oxide/Water Interface from First Principles to Experiments for Electrostatic Protective Composites. 2020 , 12,	4
388	Spontaneous Mosaics of Charge Formed by Liquid Evaporation. 2020 , 7, 2000884	4
387	Towards highly efficient solar-driven interfacial evaporation for desalination. 2020 , 8, 17907-17937	40
386	Electromechanical coupling effects for data storage and synaptic devices. 2020 , 77, 105156	8
385	Self-doped tungsten oxide films induced by in situ carbothermal reduction for high performance electrochromic devices. 2020 , 8, 13999-14006	7
384	Identification of water-infiltration-induced electrical energy generation by ionovoltaic effect in porous CuO nanowire films. 2020 , 13, 3432-3438	11
383	Manipulating unidirectional fluid transportation to drive sustainable solar water extraction and brine-drenching induced energy generation. 2020 , 13, 4891-4902	66
382	Anomalies of Ionic/Molecular Transport in Nano and Sub-Nano Confinement. 2020 , 20, 6937-6946	48
381	The Emerging of Hydrovoltaic Materials as a Future Technology: A Case Study for China. 2020 ,	1
380	Structural Effects on a Sandwich-Like Hydrocapacitor and Its Mechanism Research. 2020 , 3, 9468-9476	2
379	High-performance solar vapor generation by sustainable biomimetic snake-scale-like porous carbon. 2020 , 4, 5522-5532	16
378	Fiber-Shaped Fluidic Nanogenerator with High Power Density for Self-Powered Integrated Electronics. 2020 , 1, 100175	5
377	Wearable Battery-Free Perspiration Analyzing Sites Based on Sweat Flowing on ZnO Nanoarrays. 2020 , 12, 105	16

376	High-Performance Magnesium-Carbon Nanofiber Hygroelectric Generator Based on Interface-Mediation-Enhanced Capacitive Discharging Effect. 2020 , 12, 24289-24297	11
375	Flexible PtNi-S-Deposited Teflon Membrane with High Surface Mechanical Properties for Efficient Solar-Driven Strong Acidic/Alkaline Water Evaporation. 2020 , 12, 27140-27149	15
374	Flexible Silicon Carbide Based Nano-generator Driven by Water Evaporation. 2020 , 538, 110858	3
373	Study on evaporation heat transfer performance of composite porous wicks with spherical-dendritic powders based on orthogonal experiment. 2020 , 156, 119794	5
372	Electricity generation by sliding an ionic solution droplet on a self-assembled reduced graphene oxide film. 2020 , 8, 12735-12743	6
371	Carbonized Bark by Laser Treatment for Efficient Solar-Driven Interface Evaporation. 2020 , 5, 13482-13488	5
370	Carbon-based absorbers for solar evaporation: Steam generation and beyond. 2020 , 25, e00182	16
369	Constant Electricity Generation in Nanostructured Silicon by Evaporation-Driven Water Flow. 2020 , 59, 10619-10625	41
368	Integration designs toward new-generation wearable energy supply-sensor systems for real-time health monitoring: A minireview. 2020 , 2, 1109-1130	23
367	Sustainable and flexible hydrovoltaic power generator for wearable sensing electronics. 2020 , 72, 104663	36
366	Materials for solar-powered water evaporation. 2020 , 5, 388-401	318
365	Constant Electricity Generation in Nanostructured Silicon by Evaporation-Driven Water Flow. 2020 , 132, 10706-10712	7
364	Smart Textiles for Electricity Generation. 2020 , 120, 3668-3720	349
363	Influence factors of thermal driven ion transport in nano-channel for thermoelectricity application. 2020 , 152, 119501	7
362	Cumulative charging behavior of water droplet driven freestanding triboelectric nanogenerators toward hydrodynamic energy harvesting. 2020 , 8, 7880-7888	30
361	Ultralight, Structurally Stable Electrospun Sponges with Tailored Hydrophilicity as a Novel Material Platform. 2020 , 12, 18002-18011	13
360	Efficient coating fabrication of onion-like carbon nanoparticles via aerosol deposition. 2020 , 53, 58-62	2
359	Robust carbon-dot-based evaporator with an enlarged evaporation area for efficient solar steam generation. 2020 , 8, 14566-14573	24

358	Solar-thermal conversion and steam generation: a review. 2020 , 179, 115691	31
357	Temperature-difference-induced electricity during solar desalination with bilayer MXene-based monoliths. 2020 , 76, 105060	19
356	The tribovoltaic effect and electron transfer at a liquid-semiconductor interface. 2020 , 76, 105070	48
355	Protein-Based Flexible Moisture-Induced Energy-Harvesting Devices As Self-Biased Electronic Sensors. 2020 , 2, 780-789	18
354	Bioinspired Temperature Regulation in Interfacial Evaporation. 2020 , 30, 1910481	12
353	Power generation from ambient humidity using protein nanowires. 2020 , 578, 550-554	169
352	Moisture-powered memristor with interfacial oxygen migration for power-free reading of multiple memory states. 2020 , 71, 104628	25
351	Tiny water droplet with huge power. 2020 , 65, 693-695	3
350	Asymmetric ionic aerogel of biologic nanofibrils for harvesting electricity from moisture. 2020 , 71, 104610	33
349	Harvesting Electricity from Water Evaporation through Microchannels of Natural Wood. 2020 , 12, 11232-11239	51
348	Electricity generation based on a photothermally driven Ti ₃ C ₂ T _x MXene nanofluidic water pump. 2020 , 70, 104481	22
347	Thermal-Driven Ion Transport in Porous Materials for Thermoelectricity Applications. 2020 , 36, 1418-1422	6
346	Recycling non-food-grade tree gum wastes into nanoporous carbon for sustainable energy harvesting. 2020 , 22, 1198-1208	19
345	Surface charge density-dependent performance of NiAl layered double hydroxide-based flexible self-powered generators driven by natural water evaporation. 2020 , 70, 104502	24
344	Nanogenerators with Superwetting Surfaces for Harvesting Water/Liquid Energy. 2020 , 30, 1908252	50
343	Carbon anchored conducting polymer composite linkage for high performance water energy harvesters. 2020 , 74, 104827	3
342	Electric current generation of a droplet falling into an electrolyte solution. 2020 , 212, 112791	2
341	Latest development in salt removal from solar-driven interfacial saline water evaporators: Advanced strategies and challenges. 2020 , 177, 115770	59

340	Tree-inspired ultra-rapid steam generation and simultaneous energy harvesting under weak illumination. 2020 , 8, 10260-10268	10
339	Boosting the output performance of volume effect electricity generator (VEEG) with water column. 2020 , 73, 104748	28
338	Engineering controllable water transport of biosafety cuttlefish juice solar absorber toward remarkably enhanced solar-driven gas-liquid interfacial evaporation. 2020 , 73, 104834	46
337	Template-Free Synthesis of N-Doped Porous Carbon Materials From Furfuryl Amine-Based Protic Salts. 2020 , 8, 196	4
336	Multifunctional coatings of exfoliated and reassembled graphite on cellulosic substrates. 2021 , 227, 105-124	6
335	On the applicability of continuum scale models for ultrafast nanoscale liquid-vapor phase change. 2021 , 135, 103508	1
334	Thermal insulation design for efficient and scalable solar water interfacial evaporation and purification. 2021 , 66, 157-162	6
333	A Capacitor-type Faradaic Junction for Direct Solar Energy Conversion and Storage. 2021 , 60, 1390-1395	9
332	Stable Self-Floating Reduced Graphene Oxide Hydrogel Membrane for High Rate of Solar Vapor Evaporation under 1 sun. 2021 , 5, 2000053	6
331	Evaporative electrical energy generation via diffusion-driven ion-electron-coupled transport in semiconducting nanoporous channel. 2021 , 80, 105522	9
330	Recent developments in flexible thermoelectrics: From materials to devices. 2021 , 137, 110448	29
329	A Capacitor-type Faradaic Junction for Direct Solar Energy Conversion and Storage. 2021 , 133, 1410-1415	
328	An experimental exploration of generating electricity from nature-inspired hierarchical evaporator: The role of electrode materials. 2021 , 759, 143490	26
327	Hybrid solar-driven interfacial evaporation systems: Beyond water production towards high solar energy utilization. 2021 , 42, 178-191	94
326	Porous evaporators with special wettability for low-grade heat-driven water desalination. 2021 , 9, 702-726	25
325	Electricity generation from phase-engineered flexible MoS ₂ nanosheets under moisture. 2021 , 81, 105630	8
324	Water droplet bouncing dynamics. 2021 , 81, 105647	21
323	Recent advances in the development of radiative sky cooling inspired from solar thermal harvesting. 2021 , 81, 105611	13

322	Copper oxide nanoparticles promote β -synuclein oligomerization and underlying neurotoxicity as a model of Parkinson's disease. 2021 , 323, 115051	2
321	Metamaterial and Helmholtz coupled resonator for high-density acoustic energy harvesting. 2021 , 82, 105693	23
320	Dynamics for droplet-based electricity generators. 2021 , 80, 105558	15
319	Self-Powered Humidity Sensor Based on Polypyrrole/Melamine Aerogel for Real-Time Humidity Monitoring. 2021 , 21, 2604-2609	9
318	Electrohydrodynamic and Hydroelectric Effects at the Water/Solid Interface: from Fundamentals to Applications. 2021 , 8, 2000670	11
317	Bioinspired Surface with Superwettability for Controllable Liquid Dynamics. 2021 , 8, 2000824	12
316	CHAPTER 10:Harvesting Solar Energy by 3D Graphene-based Macroarchitectures. 2021 , 257-295	
315	Polarized Water Driven Dynamic PN Junction-Based Direct-Current Generator. 2021 , 2021, 7505638	14
314	Solar-driven ionic power generation via a film of nanocellulose @ conductive metal/organic framework. 2021 , 14, 900-905	16
313	Efficiently cogenerating drinkable water and electricity from seawater via flexible MOF nanorod arrays. 2021 , 9, 9048-9055	11
312	Electricity generation from the interaction of liquid/solid interface: a review. 2021 , 9, 8870-8895	16
311	Rational designs of interfacial-heating solar-thermal desalination devices: recent progress and remaining challenges. 2021 , 9, 6612-6633	12
310	Emerging Materials for Water-Enabled Electricity Generation. 2021 , 3, 193-209	18
309	Neuromorphic van der Waals crystals for substantial energy generation. 2021 , 12, 47	2
308	Photothermal Membrane Distillation toward Solar Water Production.. 2021 , 5, e2001200	35
307	Probing the Interaction of Water Molecules with Oxidized Graphene by First Principles. 2021 , 125, 4580-4587	2
306	Review of interface solar-driven steam generation systems: High-efficiency strategies, applications and challenges. 2021 , 283, 116361	13
305	Polyaniline-Coated MOFs Nanorod Arrays for Efficient Evaporation-Driven Electricity Generation and Solar Steam Desalination. 2021 , 8, 2004552	30

304	Self-Powered Memristive Systems for Storage and Neuromorphic Computing. 2021 , 15, 662457	1
303	Interfacial Solar Vapor Generation: Materials and Structural Design. 2021 , 2, 198-209	15
302	Biomass-Derived Carbonaceous Materials with Multichannel Waterways for Solar-Driven Clean Water and Thermoelectric Power Generation. 2021 , 9, 4571-4582	15
301	Efficient Moisture-Induced Energy Harvesting from Water-Soluble Conjugated Block Copolymer-Functionalized Reduced Graphene Oxide. 2021 , 6, 7257-7265	3
300	A Triboelectric-Nanogenerator-Based Gas/Solid Two-Phase Flow Sensor for Pneumatic Conveying System Detecting. 2021 , 6, 2001270	4
299	Performance of a bi-layer solar steam generation system working at a high-temperature of top surface. 1	
298	Asymmetric Charged Conductive Porous Films for Electricity Generation from Water Droplets Capillary Infiltrating. 2021 , 13, 17902-17909	13
297	Bilayer of polyelectrolyte films for spontaneous power generation in air up to an integrated 1,000 V output. <i>Nature Nanotechnology</i> , 2021 , 16, 811-819	28.7 44
296	Solar Evaporation-Based Energy Harvesting Using a Leaf-Inspired Energy-Harvesting Foam. 2021 , 9, 5027-5037	4
295	A comprehensive review on the prospects of multi-functional carbon nano onions as an effective, high-performance energy storage material. 2021 , 175, 534-575	16
294	A universal single electrode droplet-based electricity generator (SE-DEG) for water kinetic energy harvesting. 2021 , 82, 105735	32
293	Voltage Distribution in Porous Carbon Black Films Induced by Water Evaporation. 2021 , 125, 8959-8964	7
292	Nanofluidics for osmotic energy conversion. 2021 , 6, 622-639	57
291	Engineering Hydrogels for Efficient Solar Desalination and Water Purification. 2021 , 2, 374-384	29
290	Bioinspired Hierarchical Nanofabric Electrode for Silicon Hydrovoltaic Device with Record Power Output. 2021 , 15, 7472-7481	15
289	Cellulose membranes as moisture-driven actuators with predetermined deformations and high load uptake. 1-11	3
288	A universal managing circuit with stabilized voltage for maintaining safe operation of self-powered electronics system. 2021 , 24, 102502	7
287	Hydropower generation by transpiration from microporous alumina. 2021 , 11, 10954	2

286	Advances in Electrospun Fiber-Based Flexible Nanogenerators for Wearable Applications. 2021 , 306, 2100143	11
285	Recent progress in human body energy harvesting for smart bioelectronic system. 2021 , 1, 364-385	39
284	Self-Powerbility in Electrical Stimulation Drug Delivery System. 2100055	7
283	A self-powered UV photodetector based on the hydrovoltaic and photoelectric coupling properties of ZnO nanowire arrays. 2021 , 867, 159073	8
282	A Simple High Power, Fast Response Streaming Potential/Current-Based Electric Nanogenerator Using a Layer of AlO Nanoparticles. 2021 , 13, 27169-27178	5
281	Surface Patterning of Two-Dimensional Nanostructure-Embedded Photothermal Hydrogels for High-Yield Solar Steam Generation. 2021 , 15, 10366-10376	66
280	Fast Water Evaporation from Nanopores. 2021 , 8, 2100660	1
279	Contact Electrification at the Liquid-Solid Interface. 2021 ,	47
278	Carbon Materials for Solar Water Evaporation and Desalination. 2021 , 17, e2007176	27
277	Solvent-induced electrochemistry at an electrically asymmetric carbon Janus particle. 2021 , 12, 3415	5
276	Harvesting energy from high-frequency impinging water droplets by a droplet-based electricity generator. 2021 , 3, e12116	16
275	Printed Honeycomb-Structured Reduced Graphene Oxide Film for Efficient and Continuous Evaporation-Driven Electricity Generation from Salt Solution. 2021 , 13, 26989-26997	5
274	Direct Current Electricity Generation from Dynamic Polarized Water Semiconductor Interface. 2021 , 125, 14180-14187	6
273	Recent advances and challenges for water evaporation-induced electricity toward applications. 2021 , 85, 105979	39
272	Scalable Wood Hydrogel Membrane with Nanoscale Channels. 2021 ,	10
271	Volcanic relationship between wettability of the interface and water migration rate in solar steam generation systems. 1	1
270	Extraction of Evaporation-Driven Electrokinetic Streaming Potential from V2O5 Nanochannels through Secondary Sources. 2021 , 4, 8410-8420	1
269	A novel, flexible dual-mode power generator adapted for wide dynamic range of the aqueous salinity. 2021 , 85, 105970	10

268	Carbonization temperature dependence of hydrovoltaic conversion of natural wood. 2021 , 56, 16387-16398	1
267	Photothermal, photocatalytic, and anti-bacterial Ti-Ag-O nanoporous powders for interfacial solar driven water evaporation. 2021 , 47, 19800-19808	4
266	Mechanistic Investigation of Electrostatic Field-Enhanced Water Evaporation. 2021 , 8, e2100875	5
265	Remarkable Rate of Water Evaporation through Naked Veins of Natural Tree Leaves. 2021 , 6, 20379-20387	1
264	Self-regulating and asymmetric evaporator for efficient solar water-electricity generation. 2021 , 86, 106112	7
263	Electron-Selective Passivation Contacts for High-Efficiency Nanostructured Silicon Hydrovoltaic Devices. 2021 , 8, 2101213	3
262	Experimental investigation into energy harvesting of NaCl droplet flow over graphene supported by silicon dioxide. 2021 , 229, 120715	0
261	Evaporation-Induced Diffusion Acceleration in Liquid-Filled Porous Materials. 2021 , 6, 21646-21654	2
260	Colloidal chemistry as a guide to design intended dispersions of carbon nanomaterials. 2021 , 21, 100526	1
259	Enhanced Evaporation of Ultrathin Water Films on Silicon-Terminated SiN Nanopore Membranes. 2021 , 37, 10046-10051	1
258	Hierarchical Oriented Metal-Organic Frameworks Assemblies for Water-Evaporation Induced Electricity Generation. 2021 , 31, 2104732	3
257	?????????????????. 2021 ,	
256	Interfacial solar evaporation driven lead removal from a contaminated soil. e12140	6
255	Origin of Enhanced Electricity Generation on Magn η Phase Titanium Suboxide Nanocrystal Films.	0
254	A leaf-mimic rain energy harvester by liquid-solid contact electrification and piezoelectricity. 2021 , 90, 106573	7
253	Recent Advances in Chitin and Chitosan/Graphene-Based Bio-Nanocomposites for Energetic Applications. 2021 , 13,	5
252	Highly efficient solar desalination and wastewater treatment by economical wood-based double-layer photoabsorbers. 2021 , 101, 334-347	17
251	Three-dimensional nanoporous SnO $_2$ /CdS heterojunction for high-performance photoelectrochemical water splitting. 2021 , 560, 149904	4

250	Moisture-induced autonomous surface potential oscillations for energy harvesting. 2021 , 12, 5287	6
249	Recent progress of energy harvesting and conversion coupled with atmospheric water gathering. 2021 , 246, 114668	3
248	Interfacial solar evaporator for clean water production and beyond: From design to application. 2021 , 299, 117317	7
247	Synergistic freshwater and electricity production using passive membrane distillation and waste heat recovered from camouflaged photovoltaic modules. 2021 , 318, 128464	1
246	Controllable synthesis of sea urchin-like carbon from metal-organic frameworks for advanced solar vapor generators. 2021 , 423, 130268	32
245	A facile and sustainable hygroelectric generator using whole-cell <i>Geobacter sulfurreducens</i> . 2021 , 89, 106361	4
244	Carbon nanomaterial-based nanogenerators for harvesting energy from environment. 2021 , 90, 106494	5
243	Achieving steam and electrical power from solar energy by MoS ₂ -based composites. 2022 , 427, 131008	8
242	All-in-one photocatalysis device for one-step high concentration H ₂ O ₂ photoproduction. 2022 , 427, 131972	1
241	Geometry effect on water-evaporation-induced voltage in porous carbon black film. 2021 , 64, 629-634	3
240	Photothermal Devices for Sustainable Uses Beyond Desalination. 2021 , 2, 2000056	17
239	Electrokinetic effect and H ₂ O ₂ boosting in synthetic graphene/FeOOH aerogel films for the generation of electricity. 2021 , 9, 5588-5596	0
238	Generating Electricity from Natural Evaporation Using PVDF Thin Films Incorporating Nanocomposite Materials. 2021 , 14, 585	1
237	Nanofiber fabric based ion-gradient-enhanced moist-electric generator with a sustained voltage output of 1.1 volts. 2021 , 8, 2303-2309	12
236	Up-scalable emerging energy conversion technologies enabled by 2D materials: from miniature power harvesters towards grid-connected energy systems. 2021 , 14, 3352-3392	6
235	Ultraviolet light-assisted electrokinetic conversion based on TiO ₂ electrodes. 2020 , 18, 100517	1
234	Agricultural waste-derived moisture-absorber for all-weather atmospheric water collection and electricity generation. 2020 , 74, 104922	30
233	Solar evaporation and electricity generation of porous carbonaceous membrane prepared by electrospinning and carbonization. 2020 , 215, 110591	14

232	Nanoconfined Fluids: What Can We Expect from Them?. 2020 , 11, 4678-4692	35
231	Highly efficient three-dimensional solar evaporator for high salinity desalination by localized crystallization. 2020 , 11, 521	157
230	A droplet-based electricity generator with high instantaneous power density. 2020 , 578, 392-396	391
229	Investigation of the phenomena occurring near the liquid-vapor interface during evaporation of water at low pressures. 2018 , 3,	5
228	Capillary Nylon 6 polymer material produced by femtosecond laser processing. 2019 , 27, 36066-36074	4
227	Emerging Devices Based on Two-Dimensional Monolayer Materials for Energy Harvesting. 2019 , 2019, 7367828	20
226	Towards Watt-scale hydroelectric energy harvesting by Ti3C2Tx-based transpiration-driven electrokinetic power generators.	14
225	Heat-triggered high-performance thermocells enable a self-powered forest fire alarm. 2021 , 9, 26119-26126	2
224	Verification of Carrier Concentration-Dependent Behavior in Water-Infiltration-Induced Electricity Generation by Ionovoltaic Effect. 2021 , 17, e2103448	1
223	Spontaneous power generation from broad-humidity atmospheres through heterostructured F/O-bonded graphene monoliths. 2022 , 91, 106605	1
222	All-Soft and Stretchable Thermogalvanic Gel Fabric for Antideformity Body Heat Harvesting Wearable. 2021 , 11, 2102219	8
221	Pool evaporation under low Grashof number downward convection. 2021 , 181, 122021	1
220	The Power of the Micro-tide. 2019 , 87-96	
219	Textile-Based Asymmetric Hierarchical Systems for Constant Hydrovoltaic Electricity Generation. 2021 , 431, 133236	2
218	Continuous Energy Harvesting from Ubiquitous Humidity Gradients using Liquid-Infused Nanofluidics. 2021 , e2106410	7
217	Self-pumping ultra-thin film evaporation on CNT-embedded silicon nitride nanopore membrane. 1	0
216	Holey graphene oxide membranes containing both nanopores and nanochannels for highly efficient harvesting of water evaporation energy. 2022 , 430, 132759	4
215	Water-Evaporation-Induced Electric Generator Built from Carbonized Electrospun Polyacrylonitrile Nanofiber Mats. 2021 , 13, 50900-50910	6

214	Performance and power management of droplets-based electricity generators. 2022 , 92, 106705	4
213	Direct fabrication of high performance moisture-driven power generators using laser induced graphitization of sodium chloride-impregnated cellulose nanofiber films. 2022 , 92, 106772	5
212	Ceramic Nanofiber-Based Water-Induced Electric Generator. 2021 , 13, 56226-56232	2
211	Simultaneous water and electricity harvesting from low-grade heat by coupling a membrane distiller and an electrokinetic power generator. 2021 , 9, 27709-27717	1
210	Freestanding Silicon Nanowires Mesh for Efficient Electricity Generation from Evaporation-Induced Water Capillary Flow.	
209	The Preparation of High Performance Multi-Functional Porous Sponge Through a Biomimic Coating Strategy Based on Polyurethane Dendritic Colloids.	
208	Continuous Water Flow in Nanotube Nanochannels.	
207	Humidity to electricity converter based on oxide nanoparticles. 1	0
206	Recent advances and challenges of emerging solar-driven steam and the contribution of photocatalytic effect. 2022 , 431, 134024	12
205	Freestanding silicon nanowires mesh for efficient electricity generation from evaporation-induced water capillary flow. 2022 , 94, 106917	1
204	Enhanced-Performance Droplet-Triboelectric Nanogenerators with Composite Polymer Films and Electrowetting-Assisted Charge Injection.	
203	A bioinspired 3D solar evaporator with balanced water supply and evaporation for highly efficient photothermal steam generation. 2022 , 10, 2856-2866	6
202	Hydrovoltaic power generation from multiwalled carbon nanotubes.	2
201	Recent advances in heterostructured cathodic electrocatalysts for non-aqueous Li-O batteries.. 2022 , 13, 2841-2856	0
200	All-Weather-Compatible Hydrovoltaic Cells Based on AlO TLC Plates.. 2022 , 7, 2618-2623	2
199	Bioinspired Topological Surfaces for Mitigating Water, Thermal and Energy Crises.	1
198	Resistance matching materials nanoarchitectonics for better performances in water evaporation-driven generators.. 2022 ,	0
197	Catalytic processes for the direct synthesis of dimethyl carbonate from CO ₂ and methanol: a review. 2022 , 24, 1067-1089	4

- 196 Chinese ink enabled natural wood for moist-induced electricity generation. **2022**, 17, 1822-1830 2
- 195 Molecular origin of fast evaporation at the solid-water-vapor line in a sessile droplet.. **2022**, 2
- 194 MXenes for Energy Harvesting.. **2022**, e2108560 13
- 193 Robust and flexible wearable generator driven by water evaporation for sustainable and portable self-power supply. **2022**, 434, 134671 2
- 192 Numerical investigation on water evaporation characteristics at low pressures in a stainless steel funnel. **2022**, 175, 107488
- 191 Thermally induced continuous water flow in long nanotube channels. **2022**, 191, 175-182 0
- 190 Facile fabrication of oxygen and nitrogen co-doped 3D-carbon nanoarrays for high performance environmentally friendly wireless charging integration supercapacitor. **2022**, 49, 104082 1
- 189 Chemical electrification at solid/liquid/air interface by surface dipole of self-assembled monolayer and harvesting energy of moving water.. **2022**, 615, 59-68 3
- 188 Triboelectric nanogenerator based on a moving bubble in liquid for mechanical energy harvesting and water level monitoring. **2022**, 95, 106998 5
- 187 Water-Enabled Electricity Generation: A Perspective. 2100196 1
- 186 Boosting the output of bottom-electrode droplets energy harvester by a branched electrode. **2022**, 95, 107024 1
- 185 Boosting the Output of Bottom-Electrode Droplets Energy Harvester by a Branched Electrode.
- 184 Fabrication of Biomass Derived Moisture Diffusion Energy Harvester and Statistical Analysis of Governing Factors Affecting its Performance.
- 183 Fabricating High Performance Multi-Functional Hygroelectric Generator Through Creating Large Ion Density Difference, Direct Contact between Water and Active Materials and Large Specific Surface Area with a Biomimic Approach.
- 182 Biomass-Derived Nanostructured Coatings Based on Cellulose Nanofibers-Melanin Hybrids Toward Solar-Enabled Multifunctional Energy Management.
- 181 Electricity generation from water evaporation through highly conductive carbonized wood with abundant hydroxyls. 2
- 180 Enhanced Output Performance of Surface-Modified Wood Sponge-Carbon Black Ink Hygroelectric Generator.
- 179 Enhancing hydrovoltaic power generation through heat conduction effects.. **2022**, 13, 1043 3

178	Ionic Hydrogel for Efficient and Scalable Moisture-Electric Generation.. 2022 , e2200693	9
177	Recent advances in highly integrated energy conversion and storage system.	5
176	Evaporating potential. 2022 , 6, 690-701	4
175	Multiphysics simulation explaining the behaviour of evaporation-driven nanoporous generators. 2022 , 256, 115382	
174	Water-driven energy harvesting characteristics of MoSi thin film devices. 2022 , 12, 035105	
173	Asymmetric Electrokinetic Energy Conversion in Slip Conical Nanopores.. 2022 , 12,	0
172	An asymmetric hygroscopic structure for moisture-driven hygro-ionic electricity generation and storage.. 2022 , e2201228	10
171	Polydopamine-Coated Natural Rubber Sponge for Highly Efficient Vapor Generation.. 2022 , 14,	0
170	Harvesting conductive heat loss of interfacial solar evaporator for thermoelectric power generation. 2022 , 208, 118279	0
169	The preparation of high performance Multi-functional porous sponge through a biomimic coating strategy based on polyurethane dendritic colloids. 2022 , 438, 135659	2
168	Biomass-derived nanostructured coatings based on cellulose nanofibers-melanin hybrids toward solar-enabled multifunctional energy management. 2022 , 97, 107180	2
167	Useful spontaneous hygroelectricity from ambient air by ionic wood. 2022 , 96, 107065	6
166	Isothermal and near-isothermal free evaporation of water from open tubes in air. 2022 , 189, 122687	0
165	Emerging hydrovoltaic technology based on carbon black and porous carbon materials: A mini review. 2022 , 193, 339-355	4
164	Fabricating high performance multi-functional hygroelectric generator through a biomimic approach. 2022 , 98, 107241	2
163	Generating Electricity from Water Evaporation Through Microbial Biofilms.	0
162	High Performance Flexible Tribo/Piezoelectric Nanogenerators based on BaTiO ₃ /Chitosan Composites. 2022 , 223, 137-151	1
161	CNTs/Wood Composite Nanogenerator for Producing Both Steam and Electricity. 2021 , 3, 5287-5295	2

160	Flexible, self-cleaning, and high-performance ceramic nanofiber-based moist-electric generator enabled by interfacial engineering. 2022 , 65, 450-457	0
159	Graphene-Based Assemblies for Moist-Electric Generation. 2021 , 9,	1
158	Electricity Generation and Self-Powered Sensing Enabled by Dynamic Electric Double Layer at Hydrogel-Dielectric Elastomer Interfaces. 2021 ,	6
157	Effects of Temperature on the Tribovoltaic Effect at Liquid-Solid Interfaces. 2022 , 9, 2101757	4
156	Emerging design principles, materials, and applications for moisture-enabled electric generation. 2021 ,	6
155	Digital Microscale Electrochemical Energy Storage Devices for a Fully Connected and Intelligent World. 2022 , 7, 267-281	3
154	Is Heat Really Beneficial to Water Evaporation-Driven Electricity?. 2021 , 12, 12370-12375	0
153	Skin bioelectronics towards long-term, continuous health monitoring.. 2022 ,	11
152	Hydrovoltaic Energy Harvesting at Ionic Polymer-Hydrogel-Carbon Composites via Moisture Flow.	5
151	Water evaporation-induced electricity with biofilms.. 2022 , 8, eabm8047	2
150	Enhancing output performance of surface-modified wood sponge-carbon black ink hygroelectric generator via moisture-triggered galvanic cell. 2022 , 107288	2
149	Harvesting Water-Evaporation-Induced Electricity Based on Liquid-Solid Triboelectric Nanogenerator.. 2022 , e2201586	9
148	Table_1.DOCX. 2020 ,	
147	Energy harvesting by vitrimer-based moist-electric generators.	0
146	Surface Wettability for Skin-Interfaced Sensors and Devices. 2200260	8
145	Knittable Composite Fiber Allows Constant and Tremendous Self-Powering Based on the Transpiration-Driven Electrokinetic Effect. 2203666	0
144	A hydrovoltaic power generation system based on solar thermal conversion. 2022 , 99, 107356	1
143	Fabrication of biomass derived moisture diffusion energy harvester and statistical analysis of governing factors affecting its performance. 2022 , 8, 6171-6180	0

142	Utilizing Sugarcane as Green Transpiration-Driven Generator for Efficient Electricity Harvesting from Seawater. 2022 , 107378	2
141	A Self-Detecting and Self-Cleaning Biomimetic Porous Metal-Based Hydrogel for Oil/Water Separation.	0
140	Effects of fluid slippage on pressure-driven electrokinetic energy conversion in conical nanochannels.	1
139	Mildly Peeling Off and Encapsulating Large MXene Nanosheets with Rigid Biologic Fibrils for Synchronization of Solar Evaporation and Energy Harvest.	2
138	Hydrovoltaic technology: from mechanism to applications.	6
137	Evaporation-driven electrokinetic energy conversion: Critical review, parametric analysis and perspectives. 2022 , 305, 102708	0
136	Droplet energy harvesting panel.	4
135	Vibration-Driven Triboelectric Nanogenerator for Vibration Attenuation and Condition Monitoring for Transmission Lines.	2
134	High-Porosity Lamellar Films Prepared by a Multistage Assembly Strategy for Efficient Photothermal Water Evaporation and Power Generation.	2
133	Sustainable power generation for at least one month from ambient humidity using unique nanofluidic diode. 2022 , 13,	5
132	High-Performance Integrated Solar Steam Generator for Synergetic Freshwater Production, Salt Harvesting and Electricity Generation.	0
131	A Review: Contact Electrification on Special Interfaces. 9,	0
130	Integrating hydrovoltaic device with triboelectric nanogenerator to achieve simultaneous energy harvesting from water droplet and vapor. 2022 , 100, 107495	3
129	Wettability and evaporation of dilute sodium dodecyl sulfate droplets on micropillar-arrayed non-wetting surfaces. 2022 , 194, 123058	1
128	Synchronously managed water and heat transportation for highly efficient interfacial solar desalination. 2022 , 538, 115897	0
127	Novel stretchable fiber-shaped fluidic nanogenerators fabricated from carbonized lignin/thermoplastic polyurethane. 2022 , 186, 115240	0
126	?????????: ??????????. 2022 ,	
125	Self-sustained electricity generator driven by the compatible integration of ambient moisture adsorption and evaporation. 2022 , 13,	5

- 124 Portable and flexible water-evaporation-generator based on hydrogel.
- 123 Materials for evaporation-driven hydrovoltaic technology. 0
- 122 The mechanism for solar irradiation enhanced evaporation and electricity generation. **2022**, 107605 2
- 121 Chemical bond conversion directly drives power generation on the surface of graphdiyne. **2022**, 0
- 120 A REVIEW OF HUMIDITY GRADIENT-BASED POWER GENERATOR: DEVICES, MATERIALS AND MECHANISMS. **2022**, 107591 2
- 119 Two-Dimensional Nanomaterials for Moisture-Electric Generators: A Review. 2
- 118 Highly ordered asymmetric cellulose-based honeycomb membrane for moisture-electricity generation and humidity sensing. **2022**, 294, 119809 0
- 117 Microbial biofilms for electricity generation from water evaporation and power to wearables. **2022**, 13, 2
- 116 A droplet-based electricity generator with ultrahigh instantaneous output and short charging time. 3
- 115 Making use of water droplets as a sustainable green energy source. **2022**, 1, 7-10 2
- 114 Empowerment of Water-Evaporation-Induced Electric Generators via the Use of Metal Electrodes. **2022**, 7, 28275-28283
- 113 Streaming Potential with Ideally Polarizable Electron-Conducting Substrates. **2022**, 38, 9974-9980
- 112 All-Biobased Hydrovoltaic-Photovoltaic Electricity Generators for All-Weather Energy Harvesting. **2022**, 2022, 1-12 0
- 111 Electricity generation from atmospheric moisture using CdS/p-Si nanowire hetero-junction device.
- 110 Flexible iontronics based on 2D nanofluidic material. **2022**, 13, 2
- 109 Mixed temperature gradient evaporator for solar steam generation. **2022**, 101014
- 108 Bilayer Wood Membrane with Aligned Ion Nanochannels for Spontaneous Moist-Electric Generation. **2022**, 22, 6476-6483 0
- 107 All-Weather Freshwater and Electricity Simultaneous Generation by Coupled Solar Energy and Convection. 0

106	Achieving ultra-stable and superior electricity generation by integrating transistor-like design with lubricant armor. 2022 , 3, 100301	2
105	Enhanced-performance droplet-triboelectric nanogenerators with composite polymer films and electrowetting-assisted charge injection. 2022 , 260, 125173	1
104	A highly efficient and durable solar evaporator based on hierarchical ion-selective nanostructures.	0
103	Moist-electric generators based on electrospun cellulose acetate nanofiber membranes with tree-like structure. 2022 , 662, 120962	1
102	The electrical impedance of carbon xerogel hierarchical electrodes. 2022 , 433, 141203	0
101	Reduced graphene oxide/FeOOH-based asymmetric evaporator for the simultaneous generation of clean water and electrical power. 2023 , 201, 318-327	0
100	Spontaneous energy generation at the air/hydrogel interface with ultrahigh ion activity.	0
99	Gold nanoparticle decorated filter papers as hydrovoltaic devices.	0
98	Nanochannel-dependent power generation performance of NiAl-LDH/SiO ₂ -based generators driven by natural water evaporation.	0
97	Giant Hygro-Thermopower of All-Printed Flexible Paper From Ambient Air.	0
96	Achieving efficient power generation by designing bioinspired and multi-layered interfacial evaporator. 2022 , 13,	1
95	MOFs/Ketjen Black-Coated Filter Paper for Spontaneous Electricity Generation from Water Evaporation. 2022 , 14, 3509	0
94	A Perspective on the optical spectral design for passive solar heating and radiative cooling. 2022 , 121, 090501	0
93	Recent Development of Moisture-Enabled-Electric Nanogenerators. 2204603	0
92	Sustainable Amylopectin-Derived Miniwindmills for Moisture-Induced Electric Generation. 2200084	0
91	Minireview on Solar Desalination and Hydropower Generation by Water Evaporation: Recent Challenges and Perspectives in Materials Science. 2022 , 36, 11443-11456	1
90	Moist-electric films based on asymmetric distribution of sodium alginate oxygen-containing functional groups. 2022 , 105421	0
89	Preparation of graphitized carbon-coated glass fiber cloth materials with high mechanical strength, corrosion resistance, and solar-driven water evaporation performance. 2022 , 248, 112015	0

88	Hierarchically Porous Fiber-Based Nanofluidic Diode as an Efficient Multimode Hygroelectric Generator. 2202634	1
87	Energy Harvesting in Implantable and Wearable Medical Devices for Enduring Precision Healthcare. 2022 , 15, 7495	1
86	Electrification of water: From basics to applications. 2022 , 1, 92-109	3
85	Hydrogen Plasma on Graphene Oxide to Produce Gradients of Oxygen-Containing Functional Groups for Self-Powered Devices.	0
84	Freshwater Production Towards Microgrid Integration: Physics, Progress, and Prospects of Solar-Thermal Evaporation. 2022 , 100037	0
83	Mechanism and control of triboelectrification on oil-solid interface and self-powered early-warning sensor in petroleum industry. 2022 , 107930	1
82	Application of nanoarchitectonics in moist-electric generation. 13, 1185-1200	0
81	Sandwich-structured ion exchange membrane/cotton fabric based flexible high-efficient and constant electricity generator. 2022 , 261, 125411	0
80	Recent Development of Carbon-Nanotube-Based Solar Heat Absorption Devices and Their Application. 2022 , 12, 3871	0
79	Anion-cation heterostructured hydrogels for all-weather responsive electricity and water harvesting from atmospheric air. 2022 , 104, 107892	1
78	High-performance moisture-diffusion energy harvester using catalytic activated carbon derived from biomass. 2022 , 379, 134679	0
77	Self-powered illuminating glucose sensor. 2022 , 104, 107908	1
76	Ultra salt-resistant solar desalination system via large-scale easy- assembly of microstructural units.	0
75	Transfer learning enhanced water-enabled electricity generation in highly oriented graphene oxide nanochannels. 2022 , 13,	0
74	Thermal-mechanical-electrical energy conversion system based on Curie effect and soft-contact rotary triboelectric nanogenerator.	0
73	Bio-inspired water-driven electricity generators: From fundamental mechanisms to practical applications. 2022 ,	4
72	Flexible Liquid-Based Continuous Direct-Current Tribovoltaic Generators Enable Self-Powered Multi-Modal Sensing. 2209484	0
71	Recent advances in water-induced electricity generation based on 2D materials: A review.	0

- 70 Graphitization of carbonized wood by transition metal catalysis to enhance hydrovoltaic effect. ○
- 69 One stone two birds or you can't have your cake and eat it too? Effects of device dimensions and position of the thermoelectric module on simultaneous solar-driven water evaporation and thermoelectric generation. **2022**, 11, 419-433 1
- 68 High-performance porous copolymer hydrogel for oceanic electricity generation. **2023**, 456, 140983 ○
- 67 Fast evaporation of ultra-thin pure and saline water film through functionalized holey graphene membrane. **2023**, 140, 106542 ○
- 66 Why does water in porous carbon generate electricity?: Electrokinetic role of proton in water droplet induced hydrovoltaic system of hydrophilic porous carbon. ○
- 65 A graphene/carbon black nanofluidic membrane with fast ion transport for enhanced electrokinetic energy generation. **2023**, 204, 1-6 ○
- 64 Boosting electrical output of nanostructured silicon hydrovoltaic device via cobalt oxide enabled electrode surface contact. **2023**, 106, 108081 ○
- 63 Performance transition in droplet-based electricity generator with optimized top electrode arrangements. **2023**, 106, 108111 ○
- 62 Heat-localized solar evaporation: Transport processes and applications. **2023**, 107, 108086 ○
- 61 Voltage generation induced by thermo-driven ion solution flow in CNTs for low-grade thermal energy harvesting. **2023**, 202, 123751 ○
- 60 Advancing Hydrovoltaic Energy Harvesting from Wood through Cell Wall Nanoengineering. 2208933 ○
- 59 Smart Solar-Panel Umbrella toward High-Efficient Hybrid Solar and Rain Energy Harvesting. 2201044 ○
- 58 Construction of hierarchical and porous cellulosic wood with high mechanical strength towards directional Evaporation-driven electrical generation. **2022**, 140568 ○
- 57 Synergistic Solar-Driven Freshwater Generation and Electricity Output Empowered by Wafer-Scale Nanostructured Silicon. 2205265 ○
- 56 A self-powered flexible gas-sensing system based on single-wall carbon nanotube films. **2022**, 3, 101163 ○
- 55 Ionovoltaic electricity generation over graphene-nanoplatelets: protein-nanofibril hybrid materials. ○
- 54 CNT-functionalized Electrospun Fiber Mat for Stretchable Moisture-driven Power Generator. ○
- 53 Reduced Graphene Oxide Composite Nanowood for Solar-Driven Interfacial Evaporation and Electricity Generation. **2023**, 119985 ○

52	An Ionic Thermoelectric Material with Long Operation Duration and High Energy Density.	o
51	Meshy-metal Evaporator with Enhanced Vapor Diffusion Making the Better of Environment Energy.	o
50	Evaporative and Wicking Functionalities at Hot Airflows of Laser Nano-/Microstructured Ti-6Al-4V Material. 2023 , 13, 218	o
49	Rapid preparation of self-adhesive PAA ionic hydrogel using lignin sulfonate-Al ³⁺ composite systems for flexible moisture-electric generators.	o
48	Hydrovoltaic Nanogenerators for Self-Powered Sweat Electrolyte Analysis. 2207134	o
47	Hybrid solar evaporation system for water and electricity co-generation: Comprehensive utilization of solar and water energy. 2023 , 107, 108155	1
46	Two-orders of magnitude enhanced droplet energy harvesting via asymmetrical droplet-electrodes coupling. 2023 , 108, 108213	o
45	Mechanical energy harvesters with tensile efficiency of 17.4% and torsional efficiency of 22.4% based on homochirally plied carbon nanotube yarns.	1
44	Moisture electricity generation: Mechanisms, structures, and applications.	o
43	All-Printed Flexible Hygro-Thermoelectric Paper Generator. 2206483	o
42	Recent advances in two-dimensional materials for hydrovoltaic energy technology. 20220061	o
41	Solar Interfacial Evaporation at the Water-Energy Nexus: Bottlenecks, Approaches and Opportunities.	o
40	Pursuing Tribovoltaic Effect for Direct-Current Triboelectric Nanogenerator.	o
39	Surface charge enhanced kinetically-limited evaporation in nanopores. 2023 , 204, 123865	o
38	Cellulose fiber-based, yarn-based, and textile-based hydroelectric nanogenerators: a mini-review.	o
37	Slippery contact on organogel enabling droplet energy harvest. 2023 , 109, 108286	o
36	Rational design of oriented glass fibers within nano-porous SiO ₂ films to improve evaporation-induced hydroelectric generation. 2023 , 32, 101801	o
35	Preparation and electrothermal performance of onion-like carbon/carbon nanofibre composite film. 2023 , 818, 140429	o

- 34 Highly increased hydrovoltaic power generation via surfactant optimization of carbon black solution for cellulose microfiber cylindrical generator. **2023**, 38, 102853 ○
- 33 Energy harvesting based on water evaporation-induced electrokinetic streaming potential/current in porous carbonized carrots. **2023**, 569, 233007 ○
- 32 Ambient evaporation-induced electricity generation in activated carbon-water interfaced three-dimensional hydrovoltaic device. **2023**, 568, 232951 ○
- 31 Surface charge induced bioelectricity generation from freshwater macroalgae Pithophora. **2023**, 22, 101379 ○
- 30 A hybrid nanogenerator for collecting both water wave and steam evaporation energy. **2023**, 110, 108346 ○
- 29 Atomic-scale engineering of cation vacancies in two-dimensional unilamellar metal oxide nanosheets for electricity generation from water evaporation. **2023**, 110, 108348 ○
- 28 Spontaneous and sustainable multifunctional transpiration generator for simultaneous harvesting of electricity, freshwater and salt. **2023**, 341, 121110 ○
- 27 Simultaneous electricity generation and steam production from a wide range of salinity by using unique nanofluidic diode. **2023**, 108, 108220 ○
- 26 Tuning the Functionalization of Graphite for Hydrovoltaic Power Generation. **2023**, 15, 7511-7517 ○
- 25 Effect of surface charge gradient on the concentration difference driven energy conversion in nanochannel. **2023**, 444, 141999 ○
- 24 Advances in harvesting water and energy from ubiquitous atmospheric moisture. ○
- 23 A dual-functional device based on CB/PVDF@BFP for solar-driven water purification and water-induced electricity generation. **2023**, 11, 8110-8118 ○
- 22 Boosting the output of hydrocapacitors by structure modification. **2023**, 29, 101405 ○
- 21 Multifunctional smart mask: Enabling self-dehumidification and self-powered wearables via transpiration-driven electrokinetic power generation from human breath. **2023**, 461, 142083 ○
- 20 Bioinspired heterogeneous and hierarchical porous structure of oxo-graphene assembly for spontaneous energy harvesting from air. **2023**, 461, 142097 ○
- 19 Nanocomposites in power generation. **2023**, 497-513 ○
- 18 Understanding Interfacial Properties for Enhanced Solar Evaporation Devices: From Geometrical to Physical Interfaces. **2023**, 8, 1680-1687 ○
- 17 Robust Solid-Liquid Triboelectric Nanogenerators: Mechanisms, Strategies and Applications. 2300764 ○

- 16 Flexible high-output hydrovoltaic devices modified with AgInZnS nanoparticles for humidity sensing. **2023**, 122, 103903
- 15 Electricity Generation from Phase Transitions between Liquid and Gaseous Water. 2204091
- 14 A photovoltaic/hydrovoltaic-coupled carbon-based, all-inorganic CsPbBr₃ perovskite solar cell. **2023**, 59, 4608-4611
- 13 Formation, evolution, and enhancement mechanisms of mixed temperature gradient during interfacial solar vapor generation. **2023**, 208, 124082
- 12 Human body heat-driven thermoelectric generators as a sustainable power supply for wearable electronic devices: Recent advances, challenges, and future perspectives. **2023**, 9, e14707
- 11 Ion engines in hydrogels boosting hydrovoltaic electricity generation.
- 10 Hydrovoltaic effect-enhanced photocatalysis by polyacrylic acid/cobaltous oxide/nitrogen doped carbon system for efficient photocatalytic water splitting. **2023**, 14,
- 9 Out-Of-Plane Electrokinetics via Pumping Potential Achieved by 100 nm-Thin Polyethylene Nanomembranes.
- 8 Transpiration-Driven Electrokinetic Power Generator for Early Warning and Forecast of Geological Seepage.
- 7 Hygroelectric Generator Based on Antisymmetric Modification of Graphene Spheres with Ionic Hydrogels. **2023**, 6, 5930-5938
- 6 Ion/Electron Coupling Enables Ionic Thermoelectric Material with New Operation Mode and High Energy Density. **2023**, 15,
- 5 Self-operating seawater-driven electricity nanogenerator for continuous energy generation and storage. **2023**, 14, 100498
- 4 Microbial biofilm-based hydrovoltaic technology. **2023**,
- 3 Biomimetic Aerogel with Aligned Porous Structures from Ice Templating for Water Evaporation-Induced Electricity Generation.
- 2 A Continuous Gradient Chemical Reduction Strategy of Graphene Oxide for Highly Efficient Evaporation-Driven Electricity Generation.
- 1 Advanced Design of High-Performance Moist-Electric Generators.