

Wen Shang

List of Publications by Citations

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

96
papers

4,877
citations

33
h-index

69
g-index

100
ext. papers

6,255
ext. citations

11.3
avg, IF

5.71
L-index

#	Paper	IF	Citations
96	Solar-driven interfacial evaporation. <i>Nature Energy</i> , 2018 , 3, 1031-1041	62.3	715
95	A bioinspired, reusable, paper-based system for high-performance large-scale evaporation. <i>Advanced Materials</i> , 2015 , 27, 2768-74	24	561
94	Bio-inspired evaporation through plasmonic film of nanoparticles at the air-water interface. <i>Small</i> , 2014 , 10, 3234-9	11	313
93	Temperature effect and thermal impact in lithium-ion batteries: A review. <i>Progress in Natural Science: Materials International</i> , 2018 , 28, 653-666	3.6	282
92	Bioinspired Multifunctional Paper-Based rGO Composites for Solar-Driven Clean Water Generation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14628-36	9.5	187
91	Bioinspired engineering of thermal materials. <i>Advanced Materials</i> , 2015 , 27, 428-63	24	178
90	Coupling Interface Constructions of MoS ₂ /Fe ₃ Ni S Heterostructures for Efficient Electrochemical Water Splitting. <i>Advanced Materials</i> , 2018 , 30, e1803151	24	163
89	Bioinspired Bifunctional Membrane for Efficient Clean Water Generation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 772-9	9.5	152
88	Paper-based membranes on silicone floaters for efficient and fast solar-driven interfacial evaporation under one sun. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 16359-16368	13	127
87	The impact of surface chemistry on the performance of localized solar-driven evaporation system. <i>Scientific Reports</i> , 2015 , 5, 13600	4.9	117
86	Efficient Solar-Thermal Energy Harvest Driven by Interfacial Plasmonic Heating-Assisted Evaporation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 23412-8	9.5	109
85	Dynamic tuning of optical absorbers for accelerated solar-thermal energy storage. <i>Nature Communications</i> , 2017 , 8, 1478	17.4	101
84	In Situ Vertical Growth of Fe ₃ Ni Layered Double-Hydroxide Arrays on Fe ₃ Ni Alloy Foil: Interfacial Layer Enhanced Electrocatalyst with Small Overpotential for Oxygen Evolution Reaction. <i>ACS Energy Letters</i> , 2018 , 3, 2357-2365	20.1	90
83	In Situ Environmental TEM in Imaging Gas and Liquid Phase Chemical Reactions for Materials Research. <i>Advanced Materials</i> , 2016 , 28, 9686-9712	24	88
82	Platinum-Based Nanowires as Active Catalysts toward Oxygen Reduction Reaction: In Situ Observation of Surface-Diffusion-Assisted, Solid-State Oriented Attachment. <i>Advanced Materials</i> , 2017 , 29, 1703460	24	74
81	Magnetically-accelerated large-capacity solar-thermal energy storage within high-temperature phase-change materials. <i>Energy and Environmental Science</i> , 2019 , 12, 1613-1621	35.4	74
80	Infrared detection based on localized modification of Morpho butterfly wings. <i>Advanced Materials</i> , 2015 , 27, 1077-82	24	74

79	Solar-driven interfacial desalination for simultaneous freshwater and salt generation. <i>Desalination</i> , 2020 , 484, 114423	10.3	68
78	Floating rGO-based black membranes for solar driven sterilization. <i>Nanoscale</i> , 2017 , 9, 19384-19389	7.7	68
77	Nanoscale kinetics of asymmetrical corrosion in core-shell nanoparticles. <i>Nature Communications</i> , 2018 , 9, 1011	17.4	64
76	Neighboring Pt Atom Sites in an Ultrathin FePt Nanosheet for the Efficient and Highly CO-Tolerant Oxygen Reduction Reaction. <i>Nano Letters</i> , 2018 , 18, 5905-5912	11.5	58
75	Rapid charging of thermal energy storage materials through plasmonic heating. <i>Scientific Reports</i> , 2014 , 4, 6246	4.9	57
74	Enhancing Localized Evaporation through Separated Light Absorbing Centers and Scattering Centers. <i>Scientific Reports</i> , 2015 , 5, 17276	4.9	50
73	Form-Stable Solar Thermal Heat Packs Prepared by Impregnating Phase-Changing Materials within Carbon-Coated Copper Foams. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 3417-3427	9.5	49
72	Plasmonic-Enhanced Oxygen Reduction Reaction of Silver/Graphene Electrocatalysts. <i>Nano Letters</i> , 2019 , 19, 1371-1378	11.5	49
71	High-Efficiency Superheated Steam Generation for Portable Sterilization under Ambient Pressure and Low Solar Flux. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 18466-18474	9.5	48
70	Three-Dimensional Porous Solar-Driven Interfacial Evaporator for High-Efficiency Steam Generation under Low Solar Flux. <i>ACS Omega</i> , 2019 , 4, 3546-3555	3.9	39
69	Biotemplated Morpho Butterfly Wings for Tunable Structurally Colored Photocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 4614-4621	9.5	38
68	Patterned Surfaces for Solar-Driven Interfacial Evaporation. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 7584-7590	9.5	36
67	Stably dispersed high-temperature Fe ₃ O ₄ /silicone-oil nanofluids for direct solar thermal energy harvesting. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 17503-17511	13	35
66	Enhancing the Photocatalytic Hydrogen Evolution Performance of a Metal/Semiconductor Catalyst through Modulation of the Schottky Barrier Height by Controlling the Orientation of the Interface. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 12494-12500	9.5	33
65	Fabrication and performance evaluation of flexible heat pipes for potential thermal control of foldable electronics. <i>Applied Thermal Engineering</i> , 2016 , 95, 445-453	5.8	33
64	Substrateless Welding of Self-Assembled Silver Nanowires at Air/Water Interface. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 20483-90	9.5	32
63	Strong Electronic Interaction of Amorphous Fe ₂ O ₃ Nanosheets with Single-Atom Pt toward Enhanced Carbon Monoxide Oxidation. <i>Advanced Functional Materials</i> , 2019 , 29, 1904278	15.6	32
62	Flexible heat pipes with integrated bioinspired design. <i>Progress in Natural Science: Materials International</i> , 2015 , 25, 51-57	3.6	31

61	Vapor-Enabled Propulsion for Plasmonic Photothermal Motor at the Liquid/Air Interface. <i>Journal of the American Chemical Society</i> , 2017 , 139, 12362-12365	16.4	29
60	Photothermally Enabled Pyro-Catalysis of a BaTiO Nanoparticle Composite Membrane at the Liquid/Air Interface. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 21246-21253	9.5	27
59	An open thermo-electrochemical cell enabled by interfacial evaporation. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 6514-6521	13	27
58	Bioinspired roll-to-roll solar-thermal energy harvesting within form-stable flexible composite phase change materials. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 20970-20978	13	26
57	Integrating plasmonic nanostructures with natural photonic architectures in Pd-modified butterfly wings for sensitive hydrogen gas sensing.. <i>RSC Advances</i> , 2018 , 8, 32395-32400	3.7	25
56	Strain-Induced Corrosion Kinetics at Nanoscale Are Revealed in Liquid: Enabling Control of Corrosion Dynamics of Electrocatalysis. <i>Chem</i> , 2020 , 6, 2257-2271	16.2	24
55	Bioinspired Infrared Sensing Materials and Systems. <i>Advanced Materials</i> , 2018 , 30, e1707632	24	23
54	Temperature-induced coalescence of colliding binary droplets on superhydrophobic surface. <i>Scientific Reports</i> , 2014 , 4, 4303	4.9	21
53	Clean water generation with switchable dispersion of multifunctional Fe ₃ O ₄ -reduced graphene oxide particles. <i>Progress in Natural Science: Materials International</i> , 2018 , 28, 422-429	3.6	18
52	Ternary PtPdAg alloy nanoflowers for oxygen reduction reaction electrocatalysis. <i>CrystEngComm</i> , 2017 , 19, 6964-6971	3.3	18
51	Reconsidering the Benchmarking Evaluation of Catalytic Activity in Oxygen Reduction Reaction. <i>IScience</i> , 2020 , 23, 101532	6.1	18
50	Butterfly Wing Hears Sound: Acoustic Detection Using Biophotonic Nanostructure. <i>Nano Letters</i> , 2019 , 19, 2627-2633	11.5	17
49	Vertical segregation in the self-assembly of nanoparticles at the liquid/air interface. <i>Nanoscale</i> , 2014 , 6, 14662-6	7.7	17
48	Pyroelectric Synthesis of MetalBaTiO ₃ Hybrid Nanoparticles with Enhanced Pyrocatalytic Performance. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 2602-2609	8.3	16
47	All-Day Freshwater Harvesting through Combined Solar-Driven Interfacial Desalination and Passive Radiative Cooling. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 47612-47622	9.5	15
46	Subtractive Structural Modification of Morpho Butterfly Wings. <i>Small</i> , 2015 , 11, 5705-11	11	14
45	Bioinspired Temperature Regulation in Interfacial Evaporation. <i>Advanced Functional Materials</i> , 2020 , 30, 1910481	15.6	12
44	Evaporation: Bio-Inspired Evaporation Through Plasmonic Film of Nanoparticles at the Air/Water Interface (Small 16/2014). <i>Small</i> , 2014 , 10, 3233-3233	11	12

43	Electrically Driven Interfacial Evaporation for High-Efficiency Steam Generation and Sterilization. <i>ACS Omega</i> , 2019 , 4, 16603-16611	3.9	11
42	Erythritol impregnated within surface-roughened hydrophilic metal foam for medium-temperature solar-thermal energy harvesting. <i>Energy Conversion and Management</i> , 2020 , 222, 113241	10.6	11
41	Bubble-Enabled Underwater Motion of a Light-Driven Motor. <i>Small</i> , 2019 , 15, e1804959	11	11
40	Controllable assembly of Pd nanosheets: a solution for 2D materials storage. <i>CrystEngComm</i> , 2017 , 19, 3439-3444	3.3	10
39	Ethylene glycol-based solar-thermal fluids dispersed with reduced graphene oxide.. <i>RSC Advances</i> , 2019 , 9, 10282-10288	3.7	9
38	Synthesis of Liquid Gallium@Reduced Graphene Oxide Core-Shell Nanoparticles with Enhanced Photoacoustic and Photothermal Performance.. <i>Journal of the American Chemical Society</i> , 2022 ,	16.4	9
37	Facets Matching of Platinum and Ferric Oxide in Highly Efficient Catalyst Design for Low-Temperature CO Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 15322-15327	9.5	8
36	Heterostructure of ZnO Nanosheets/Zn with a Highly Enhanced Edge Surface for Efficient CO Electrochemical Reduction to CO. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 10837-10844	9.5	8
35	Coalescence, Spreading, and Rebound of Two Water Droplets with Different Temperatures on a Superhydrophobic Surface. <i>ACS Omega</i> , 2019 , 4, 17615-17622	3.9	7
34	In Situ Transmission Electron Microscopy Study of Nanocrystal Formation for Electrocatalysis. <i>ChemNanoMat</i> , 2019 , 5, 1439-1455	3.5	7
33	Stability of single-atom catalysts for electrocatalysis. <i>Journal of Materials Chemistry A</i> ,	13	7
32	Coupling effects in 3D plasmonic structures templated by Morpho butterfly wings. <i>Nanoscale</i> , 2018 , 10, 533-537	7.7	7
31	Self-propelled rotation of paper-based Leidenfrost rotor. <i>Applied Physics Letters</i> , 2019 , 114, 113703	3.4	6
30	Manipulation of Electron Transfer between Pd and TiO for Improved Electrocatalytic Hydrogen Evolution Reaction Performance. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 27037-27044	9.5	6
29	Chemo- and stereospecific solid-state dimerization of lithium trans-2-butenoate and lithium trans-2-butenoate formamide solvate. <i>CrystEngComm</i> , 2011 , 13, 4339	3.3	6
28	All-in-one polymer sponge composite 3D evaporators for simultaneous high-flux solar-thermal desalination and electricity generation. <i>Nano Energy</i> , 2022 , 93, 106882	17.1	5
27	Self-Assembly in Hopper-Shaped Crystals. <i>Advanced Functional Materials</i> , 2020 , 30, 1908108	15.6	5
26	Boosting Oxygen and Peroxide Reduction Reactions on PdCu Intermetallic Cubes. <i>ChemElectroChem</i> , 2020 , 7, 2614-2620	4.3	4

25	Self-dispersible graphene quantum dots in ethylene glycol for direct absorption-based medium-temperature solar-thermal harvesting.. <i>RSC Advances</i> , 2020 , 10, 45028-45036	3.7	4
24	Transparent nanofluids with high thermal conductivity for improved convective thermal management of optoelectronic devices. <i>Experimental Heat Transfer</i> , 2020 , 1-13	2.4	4
23	Self-powered infrared detection using a graphene oxide film. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 9248-9255	13	4
22	Atomistic Imaging of Competition between Surface Diffusion and Phase Transition during the Intermetallic Formation of Faceted Particles. <i>ACS Nano</i> , 2021 , 15, 5284-5293	16.7	4
21	Noncontact human-machine interaction based on hand-responsive infrared structural color.. <i>Nature Communications</i> , 2022 , 13, 1446	17.4	4
20	Bioinspired infrared detection using thermoresponsive hydrogel nanoparticles. <i>Pure and Applied Chemistry</i> , 2015 , 87, 1029-1038	2.1	3
19	Pyroelectric synthesis of Au/Pt bimetallic nanoparticles-BaTiO hybrid nanomaterials.. <i>RSC Advances</i> , 2020 , 10, 22616-22621	3.7	3
18	Construction of 3D Conductive Network in Liquid Gallium with Enhanced Thermal and Electrical Performance. <i>Advanced Materials Technologies</i> , 2100970	6.8	3
17	Rapid one-step scalable microwave synthesis of TiCT MXene. <i>Chemical Communications</i> , 2021 , 57, 12611-12614	12.6	3
16	Butterfly Wing Inspired High Performance Infrared Detection with Spectral Selectivity. <i>Advanced Optical Materials</i> , 2020 , 8, 1901647	8.1	3
15	Human hand as a powerless and multiplexed infrared light source for information decryption and complex signal generation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	3
14	Design of Highly Durable Core-Shell Catalysts by Controlling Shell Distribution Guided by In-Situ Corrosion Study. <i>Advanced Materials</i> , 2021 , 33, e2101511	24	3
13	A Non-Pt Electronically Coupled Semiconductor Heterojunction for Enhanced Oxygen Reduction Electrocatalytic Property. <i>ChemistrySelect</i> , 2019 , 4, 5264-5268	1.8	2
12	Structural evolution of Pt-based oxygen reduction reaction electrocatalysts. <i>Chinese Journal of Catalysis</i> , 2022 , 43, 47-58	11.3	2
11	Chemo- and Stereospecific Solid-State Thermal Dimerization of Sodium trans-2-Butenoate and X-Ray-Induced Single-Crystal-to-Single-Crystal Dimerization of Hexaaquamagnesium trans-2-Butenoate Dihydrate: Both Give rel-(3S,4R)-1-Hexene-3,4-dicarboxylate but by Different Mechanisms. Stereospecific X-Ray-Induced Trimerization of Sodium trans-2-Butenoate. <i>Crystal Growth and Design</i> , 2021 , 21, 663-682	3.5	2
10	Integration of Biological Components into Engineered Functional Systems. <i>Matter</i> , 2020 , 3, 974-976	12.7	1
9	Light-Driven Nanodroplet Generation Using Porous Membranes. <i>Nano Letters</i> , 2020 , 20, 7874-7881	11.5	1
8	Ethylene glycol nanofluids dispersed with monolayer graphene oxide nanosheet for high-performance subzero cold thermal energy storage.. <i>RSC Advances</i> , 2021 , 11, 30495-30502	3.7	1

- 7 Gallium-Based Liquid Metal Composites with Enhanced Thermal and Electrical Performance Enabled by Structural Engineering of Filler. *Advanced Engineering Materials*, 2021, 13, 2101678 3.5 ○
- 6 Pyroelectric Synthesis of the Site-Specific Au-ZnO Nanorod Array. *ChemistrySelect*, 2021, 6, 11224-11230 1.8 ○
- 5 Bioinspired Color Change through Guided Reflection. *Advanced Optical Materials*, 2018, 6, 1800464 8.1 ○
- 4 Paste-Like Recyclable Ga Liquid Metal Phase Change Composites Loaded with Miscible Ga₂O₃ particles for Transient Cooling of Portable Electronics. *Applied Thermal Engineering*, 2022, 218, 118766 5.8 ○
- 3 Hopper-Shaped Crystals: Self-Assembly in Hopper-Shaped Crystals (Adv. Funct. Mater. 26/2020). *Advanced Functional Materials*, 2020, 30, 2070170 15.6
- 2 Bioinspired Thermal Detection 2018, 175-200
- 1 Unzipping Carbon Nanotube Bundles through NH₃-Induced Stacking for Enhanced Electrical and Thermal Transport. *ACS Applied Materials & Interfaces*, 2021, 13, 28583-28592 9.5