Chengyi Song

List of Publications by Citations

104 papers	4,769 citations	32 h-index	68 g-index
107 ext. papers	6,168 ext. citations	10.5 avg, IF	5.65 L-index

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

87	Solar-driven interfacial desalination for simultaneous freshwater and salt generation. *Desalination*, **2020**, 484, 114423	10.3	68
86	Floating rGO-based black membranes for solar driven sterilization. *Nanoscale*, **2017**, 9, 19384-19389	7.7	68
85	Nanoscale kinetics of asymmetrical corrosion in core-shell nanoparticles. *Nature Communications*, **2018**, 9, 1011	17.4	64
84	Neighboring Pt Atom Sites in an Ultrathin FePt Nanosheet for the Efficient and Highly CO-Tolerant Oxygen Reduction Reaction. *Nano Letters*, **2018**, 18, 5905-5912	11.5	58
83	Rapid charging of thermal energy storage materials through plasmonic heating. *Scientific Reports*, **2014**, 4, 6246	4.9	57
82	Enhancing Localized Evaporation through Separated Light Absorbing Centers and Scattering Centers. *Scientific Reports*, **2015**, 5, 17276	4.9	50
81	Form-Stable Solar Thermal Heat Packs Prepared by Impregnating Phase-Changing Materials within Carbon-Coated Copper Foams. *ACS Applied Materials & Interfaces*, **2019**, 11, 3417-3427	9.5	49
80	Plasmonic-Enhanced Oxygen Reduction Reaction of Silver/Graphene Electrocatalysts. *Nano Letters*, **2019**, 19, 1371-1378	11.5	49
79	High-Efficiency Superheated Steam Generation for Portable Sterilization under Ambient Pressure and Low Solar Flux. *ACS Applied Materials & Interfaces*, **2019**, 11, 18466-18474	9.5	48
78	Three-Dimensional Porous Solar-Driven Interfacial Evaporator for High-Efficiency Steam Generation under Low Solar Flux. *ACS Omega*, **2019**, 4, 3546-3555	3.9	39
77	Patterned Surfaces for Solar-Driven Interfacial Evaporation. *ACS Applied Materials & Interfaces*, **2019**, 11, 7584-7590	9.5	36
76	Stably dispersed high-temperature Fe3O4/silicone-oil nanofluids for direct solar thermal energy harvesting. *Journal of Materials Chemistry A*, **2016**, 4, 17503-17511	13	35
75	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. *ACS Applied Materials & Interfaces*, **2017**, 9, 12494-12500	9.5	33
74	Fabrication and performance evaluation of flexible heat pipes for potential thermal control of foldable electronics. *Applied Thermal Engineering*, **2016**, 95, 445-453	5.8	33
73	Substrateless Welding of Self-Assembled Silver Nanowires at Air/Water Interface. *ACS Applied Materials & Interfaces*, **2016**, 8, 20483-90	9.5	32
72	Strong Electronic Interaction of Amorphous Fe2O3 Nanosheets with Single-Atom Pt toward Enhanced Carbon Monoxide Oxidation. *Advanced Functional Materials*, **2019**, 29, 1904278	15.6	32
71	Flexible heat pipes with integrated bioinspired design. *Progress in Natural Science: Materials International*, **2015**, 25, 51-57	3.6	31
70	Crumpled graphene ball-based broadband solar absorbers. *Nanoscale*, **2018**, 10, 6306-6312	7.7	31

69	Vapor-Enabled Propulsion for Plasmonic Photothermal Motor at the Liquid/Air Interface. *Journal of the American Chemical Society*, **2017**, 139, 12362-12365	16.4	29
68	Photothermally Enabled Pyro-Catalysis of a BaTiO Nanoparticle Composite Membrane at the Liquid/Air Interface. *ACS Applied Materials & Interfaces*, **2018**, 10, 21246-21253	9.5	27
67	An open thermo-electrochemical cell enabled by interfacial evaporation. *Journal of Materials Chemistry A*, **2019**, 7, 6514-6521	13	27
66	Bioinspired roll-to-roll solar-thermal energy harvesting within form-stable flexible composite phase change materials. *Journal of Materials Chemistry A*, **2020**, 8, 20970-20978	13	26
65	Bioinspired Infrared Sensing Materials and Systems. *Advanced Materials*, **2018**, 30, e1707632	24	23
64	Temperature-induced coalescence of colliding binary droplets on superhydrophobic surface. *Scientific Reports*, **2014**, 4, 4303	4.9	21
63	Clean water generation with switchable dispersion of multifunctional Fe3O4-reduced graphene oxide particles. *Progress in Natural Science: Materials International*, **2018**, 28, 422-429	3.6	18
62	Ternary PtPdAg alloy nanoflowers for oxygen reduction reaction electrocatalysis. *CrystEngComm*, **2017**, 19, 6964-6971	3.3	18
61	Reconsidering the Benchmarking Evaluation of Catalytic Activity in Oxygen Reduction Reaction. *IScience*, **2020**, 23, 101532	6.1	18
60	Liquid Metal Composites with Enhanced Thermal Conductivity and Stability Using Molecular Thermal Linker. *Advanced Materials*, **2021**, 33, e2103104	24	18
59	Butterfly Wing Hears Sound: Acoustic Detection Using Biophotonic Nanostructure. *Nano Letters*, **2019**, 19, 2627-2633	11.5	17
58	Vertical segregation in the self-assembly of nanoparticles at the liquid/air interface. *Nanoscale*, **2014**, 6, 14662-6	7.7	17
57	Pyroelectric Synthesis of MetalBaTiO3 Hybrid Nanoparticles with Enhanced Pyrocatalytic Performance. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 2602-2609	8.3	16
56	All-Day Freshwater Harvesting through Combined Solar-Driven Interfacial Desalination and Passive Radiative Cooling. *ACS Applied Materials & Interfaces*, **2020**, 12, 47612-47622	9.5	15
55	Light-driven motion of water droplets with directional control on nanostructured surfaces. *Nanoscale*, **2020**, 12, 4295-4301	7.7	14
54	Bioinspired Temperature Regulation in Interfacial Evaporation. *Advanced Functional Materials*, **2020**, 30, 1910481	15.6	12
53	Evaporation: Bio-Inspired Evaporation Through Plasmonic Film of Nanoparticles at the AirWater Interface (Small 16/2014). *Small*, **2014**, 10, 3233-3233	11	12
52	Electrically Driven Interfacial Evaporation for High-Efficiency Steam Generation and Sterilization. *ACS Omega*, **2019**, 4, 16603-16611	3.9	11

51	Solar-driven high-temperature steam generation at ambient pressure. *Progress in Natural Science: Materials International*, **2019**, 29, 10-15	3.6	11
50	Erythritol impregnated within surface-roughened hydrophilic metal foam for medium-temperature solar-thermal energy harvesting. *Energy Conversion and Management*, **2020**, 222, 113241	10.6	11
49	Bubble-Enabled Underwater Motion of a Light-Driven Motor. *Small*, **2019**, 15, e1804959	11	11
48	Controllable assembly of Pd nanosheets: a solution for 2D materials storage. *CrystEngComm*, **2017**, 19, 3439-3444	3.3	10
47	Ethylene glycol-based solar-thermal fluids dispersed with reduced graphene oxide.. *RSC Advances*, **2019**, 9, 10282-10288	3.7	9
46	Synthesis of Liquid Gallium@Reduced Graphene Oxide Core-Shell Nanoparticles with Enhanced Photoacoustic and Photothermal Performance.. *Journal of the American Chemical Society*, **2022**,	16.4	9
45	Facets Matching of Platinum and Ferric Oxide in Highly Efficient Catalyst Design for Low-Temperature CO Oxidation. *ACS Applied Materials & Interfaces*, **2018**, 10, 15322-15327	9.5	8
44	Optical nanofluids for direct absorption-based solar-thermal energy harvesting at medium-to-high temperatures. *Current Opinion in Chemical Engineering*, **2019**, 25, 51-56	5.4	8
43	Heterostructure of ZnO Nanosheets/Zn with a Highly Enhanced Edge Surface for Efficient CO Electrochemical Reduction to CO. *ACS Applied Materials & Interfaces*, **2021**, 13, 10837-10844	9.5	8
42	Coalescence, Spreading, and Rebound of Two Water Droplets with Different Temperatures on a Superhydrophobic Surface. *ACS Omega*, **2019**, 4, 17615-17622	3.9	7
41	In Situ Transmission Electron Microscopy Study of Nanocrystal Formation for Electrocatalysis. *ChemNanoMat*, **2019**, 5, 1439-1455	3.5	7
40	Stability of single-atom catalysts for electrocatalysis. *Journal of Materials Chemistry A*,	13	7
39	Coupling effects in 3D plasmonic structures templated by Morpho butterfly wings. *Nanoscale*, **2018** , 10, 533-537	7.7	7
38	Self-propelled rotation of paper-based Leidenfrost rotor. *Applied Physics Letters*, **2019**, 114, 113703	3.4	6
37	A perspective on bio-inspired interfacial systems for solar clean-water generation. *MRS Communications*, **2019**, 9, 3-13	2.7	6
36	Manipulation of Electron Transfer between Pd and TiO for Improved Electrocatalytic Hydrogen Evolution Reaction Performance. *ACS Applied Materials & Interfaces*, **2020**, 12, 27037-27044	9.5	6
35	All-in-one polymer sponge composite 3D evaporators for simultaneous high-flux solar-thermal desalination and electricity generation. *Nano Energy*, **2022**, 93, 106882	17.1	5
34	Self-Assembly in Hopper-Shaped Crystals. *Advanced Functional Materials*, **2020**, 30, 1908108	15.6	5

33	Waste heat recovery in an oscillating heat pipe using interfacial electrical double layers. *Applied Physics Letters*, **2018**, 112, 243903	3.4	5
32	Boosting Oxygen and Peroxide Reduction Reactions on PdCu Intermetallic Cubes. *ChemElectroChem*, **2020**, 7, 2614-2620	4.3	4
31	Self-dispersible graphene quantum dots in ethylene glycol for direct absorption-based medium-temperature solar-thermal harvesting.. *RSC Advances*, **2020**, 10, 45028-45036	3.7	4
30	Transparent nanofluids with high thermal conductivity for improved convective thermal management of optoelectronic devices. *Experimental Heat Transfer*, **2020**, 1-13	2.4	4
29	Self-powered infrared detection using a graphene oxide film. *Journal of Materials Chemistry A*, **2020**, 8, 9248-9255	13	4
28	Atomistic Imaging of Competition between Surface Diffusion and Phase Transition during the Intermetallic Formation of Faceted Particles. *ACS Nano*, **2021**, 15, 5284-5293	16.7	4
27	Noncontact human-machine interaction based on hand-responsive infrared structural color.. *Nature Communications*, **2022**, 13, 1446	17.4	4
26	Pyroelectric synthesis of Au/Pt bimetallic nanoparticles-BaTiO hybrid nanomaterials.. *RSC Advances*, **2020**, 10, 22616-22621	3.7	3
25	AgPO electrocatalyst for oxygen reduction reaction: enhancement from positive charge.. *RSC Advances*, **2018**, 8, 5382-5387	3.7	3
24	Construction of 3D Conductive Network in Liquid Gallium with Enhanced Thermal and Electrical Performance. *Advanced Materials Technologies*,2100970	6.8	3
23	Rapid one-step scalable microwave synthesis of TiCT MXene. *Chemical Communications*, **2021**, 57, 12611-12614	5.8	3
22	Butterfly Wing Inspired High Performance Infrared Detection with Spectral Selectivity. *Advanced Optical Materials*, **2020**, 8, 1901647	8.1	3
21	Human hand as a powerless and multiplexed infrared light source for information decryption and complex signal generation. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	3
20	Design of Highly Durable Core-Shell Catalysts by Controlling Shell Distribution Guided by In-Situ Corrosion Study. *Advanced Materials*, **2021**, 33, e2101511	24	3
19	A Non-Pt Electronically Coupled Semiconductor Heterojunction for Enhanced Oxygen Reduction Electrocatalytic Property. *ChemistrySelect*, **2019**, 4, 5264-5268	1.8	2
18	Research on a reference signal optimisation algorithm for indoor Bluetooth positioning. *Applied Mathematics and Nonlinear Sciences*, **2021**, 6, 525-534	4	2
17	Structural evolution of Pt-based oxygen reduction reaction electrocatalysts. *Chinese Journal of Catalysis*, **2022**, 43, 47-58	11.3	2
16	Crumpled particles of ethanol-wetted graphene oxide for medium-temperature nanofluidic solar-thermal energy harvesting. *Carbon*, **2022**, 186, 492-500	10.4	2

List of Publications

15	Enhancement of infrared emissivity by the hierarchical microstructures from the wing scales of butterfly Rapala dioetas. *APL Photonics*, **2021**, 6, 036101	5.2	2
14	A bottom-up approach to generate isotropic liquid metal network in polymer-enabled 3D thermal management. *Chemical Engineering Journal*, **2022**, 439, 135674	14.7	2
13	Silicone oil nanofluids dispersed with mesoporous crumpled graphene for medium-temperature direct absorption solar-thermal energy harvesting. *Solar Energy Materials and Solar Cells*, **2022**, 243, 111794	6.4	2
12	Bioinspired Materials in Evaporation **2018**, 73-98		1
11	Thickness dependent thermal performance of a poly(3,4-ethylenedioxythiophene) thin film synthesized an electrochemical approach.. *RSC Advances*, **2022**, 12, 1897-1903	3.7	1
10	Light-Driven Nanodroplet Generation Using Porous Membranes. *Nano Letters*, **2020**, 20, 7874-7881	11.5	1
9	Ethylene glycol nanofluids dispersed with monolayer graphene oxide nanosheet for high-performance subzero cold thermal energy storage.. *RSC Advances*, **2021**, 11, 30495-30502	3.7	1
8	Hydrogen evolution from silicon nanowire surfaces.. *RSC Advances*, **2018**, 8, 41657-41662	3.7	1
7	Gallium-Based Liquid Metal Composites with Enhanced Thermal and Electrical Performance Enabled by Structural Engineering of Filler. *Advanced Engineering Materials*,2101678	3.5	0
6	Pyroelectric Synthesis of the Site-Specific Au-ZnO Nanorod Array. *ChemistrySelect*, **2021**, 6, 11224-11230	1.8	0
5	Bioinspired Color Change through Guided Reflection. *Advanced Optical Materials*, **2018**, 6, 1800464	8.1	0
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**, 118766	5.8	0
3	Hopper-Shaped Crystals: Self-Assembly in Hopper-Shaped Crystals (Adv. Funct. Mater. 26/2020). *Advanced Functional Materials*, **2020**, 30, 2070170	15.6	
2	Introduction to Thermal Properties of Materials **2018**, 1-23		
1	Plasmonic Chiral Materials **2017**, 51-84		