Qingliang Liao

List of Publications by Citations

102 papers	5,410 citations	43 h-index	72 g-index
105 ext. papers	6,803 ext. citations	14.4 avg, IF	6 L-index

#	Paper	IF	Citations
102	Flexible and Highly Sensitive Strain Sensors Fabricated by Pencil Drawn for Wearable Monitor. *Advanced Functional Materials*, **2015**, 25, 2395-2401	15.6	359
101	Single-Atom Vacancy Defect to Trigger High-Efficiency Hydrogen Evolution of MoS. *Journal of the American Chemical Society*, **2020**, 142, 4298-4308	16.4	287
100	Stretchable-Rubber-Based Triboelectric Nanogenerator and Its Application as Self-Powered Body Motion Sensors. *Advanced Functional Materials*, **2015**, 25, 3688-3696	15.6	261
99	A highly shape-adaptive, stretchable design based on conductive liquid for energy harvesting and self-powered biomechanical monitoring. *Science Advances*, **2016**, 2, e1501624	14.3	221
98	A Highly Stretchable ZnO@Fiber-Based Multifunctional Nanosensor for Strain/Temperature/UV Detection. *Advanced Functional Materials*, **2016**, 26, 3074-3081	15.6	195
97	Enhanced photoelectrochemical efficiency and stability using a conformal TiO2 film on a black silicon photoanode. *Nature Energy*, **2017**, 2,	62.3	186
96	Stretchable and Waterproof Self-Charging Power System for Harvesting Energy from Diverse Deformation and Powering Wearable Electronics. *ACS Nano*, **2016**, 10, 6519-25	16.7	160
95	Ultrasensitive and stretchable resistive strain sensors designed for wearable electronics. *Materials Horizons*, **2017**, 4, 502-510	14.4	151
94	Electromagnetic Shielding Hybrid Nanogenerator for Health Monitoring and Protection. *Advanced Functional Materials*, **2018**, 28, 1703801	15.6	139
93	Electromagnetic wave absorption in reduced graphene oxide functionalized with Fe3O4/Fe nanorings. *Nano Research*, **2016**, 9, 2018-2025	10	136
92	Self-Powered Trajectory, Velocity, and Acceleration Tracking of a Moving Object/Body using a Triboelectric Sensor. *Advanced Functional Materials*, **2014**, 24, 7488-7494	15.6	135
91	Poly(4-styrenesulfonate)-induced sulfur vacancy self-healing strategy for monolayer MoS homojunction photodiode. *Nature Communications*, **2017**, 8, 15881	17.4	129
90	Investigation on the broadband electromagnetic wave absorption properties and mechanism of Co3O4-nanosheets/reduced-graphene-oxide composite. *Nano Research*, **2017**, 10, 980-990	10	127
89	Self-powered artificial electronic skin for high-resolution pressure sensing. *Nano Energy*, **2017**, 32, 389-396	17.1	101
88	Recent Advances in Triboelectric Nanogenerator-Based Health Monitoring. *Advanced Functional Materials*, **2019**, 29, 1808849	15.6	97
87	Interface Engineering for Modulation of Charge Carrier Behavior in ZnO Photoelectrochemical Water Splitting. *Advanced Functional Materials*, **2019**, 29, 1808032	15.6	95
86	Deciphering the NH4PbI3 Intermediate Phase for Simultaneous Improvement on Nucleation and Crystal Growth of Perovskite. *Advanced Functional Materials*, **2017**, 27, 1701804	15.6	89

85	Engineering an Earth-Abundant Element-Based Bifunctional Electrocatalyst for Highly Efficient and Durable Overall Water Splitting. *Advanced Functional Materials*, **2019**, 29, 1807031	15.6	89
84	Service Behavior of Multifunctional Triboelectric Nanogenerators. *Advanced Materials*, **2017**, 29, 1606703	24	88
83	High on-off ratio improvement of ZnO-based forming-free memristor by surface hydrogen annealing. *ACS Applied Materials & Interfaces*, **2015**, 7, 7382-8	9.5	83
82	Enhanced microwave absorption performance of highly dispersed CoNi nanostructures arrayed on graphene. *Nano Research*, **2018**, 11, 2689-2704	10	82
81	Flexible, Cuttable, and Self-Waterproof Bending Strain Sensors Using Microcracked Gold Nanofilms@Paper Substrate. *ACS Applied Materials & Interfaces*, **2017**, 9, 4151-4158	9.5	81
80	Optoelectronics: All-Inorganic Perovskite Quantum Dot-Monolayer MoS2 Mixed-Dimensional van der Waals Heterostructure for Ultrasensitive Photodetector (Adv. Sci. 12/2018). *Advanced Science*, **2018**, 5, 1870078	13.6	78
79	Strain Modulation in Graphene/ZnO Nanorod Film Schottky Junction for Enhanced Photosensing Performance. *Advanced Functional Materials*, **2016**, 26, 1347-1353	15.6	77
78	Graphdiyne: Bridging SnO and Perovskite in Planar Solar Cells. *Angewandte Chemie - International Edition*, **2020**, 59, 11573-11582	16.4	76
77	In Situ Preparation of Cobalt Nanoparticles Decorated in N-Doped Carbon Nanofibers as Excellent Electromagnetic Wave Absorbers. *ACS Applied Materials & Interfaces*, **2018**, 10, 22591-22601	9.5	76
76	Interfacial Charge Behavior Modulation in Perovskite Quantum Dot-Monolayer MoS2 0D-2D Mixed-Dimensional van der Waals Heterostructures. *Advanced Functional Materials*, **2018**, 28, 1802015	15.6	75
75	Gold nanoparticle/ZnO nanorod hybrids for enhanced reactive oxygen species generation and photodynamic therapy. *Nano Research*, **2015**, 8, 2004-2014	10	68
74	Temperature-dependent electrochemical capacitive performance of the □Fe2O3 hollow nanoshuttles as supercapacitor electrodes. *Journal of Colloid and Interface Science*, **2016**, 466, 291-6	9.3	67
73	Graphene-Based Mixed-Dimensional van der Waals Heterostructures for Advanced Optoelectronics. *Advanced Materials*, **2019**, 31, e1806411	24	67
72	Development, applications, and future directions of triboelectric nanogenerators. *Nano Research*, **2018**, 11, 2951-2969	10	66
71	An Amphiphobic Hydraulic Triboelectric Nanogenerator for a Self-Cleaning and Self-Charging Power System. *Advanced Functional Materials*, **2018**, 28, 1803117	15.6	64
70	ZnO nanostructures in enzyme biosensors. *Science China Materials*, **2015**, 58, 60-76	7.1	58
69	Self-powered user-interactive electronic skin for programmable touch operation platform. *Science Advances*, **2020**, 6, eaba4294	14.3	55
68	Self-Recovering Triboelectric Nanogenerator as Active Multifunctional Sensors. *Advanced Functional Materials*, **2015**, 25, 6489-6494	15.6	54

67	Nonenzymatic Glucose Sensor Based on In Situ Reduction of Ni/NiO-Graphene Nanocomposite. *Sensors*, **2016**, 16,	3.8	54
66	Strain-Engineered van der Waals Interfaces of Mixed-Dimensional Heterostructure Arrays. *ACS Nano*, **2019**, 13, 9057-9066	16.7	53
65	Kelvin probe force microscopy for perovskite solar cells. *Science China Materials*, **2019**, 62, 776-789	7.1	52
64	The enhanced performance of piezoelectric nanogenerator via suppressing screening effect with Au particles/ZnO nanoarrays Schottky junction. *Nano Research*, **2016**, 9, 372-379	10	47
63	Functional nanogenerators as vibration sensors enhanced by piezotronic effects. *Nano Research*, **2014**, 7, 190-198	10	47
62	Highly Robust and Self-Powered Electronic Skin Based on Tough Conductive Self-Healing Elastomer. *ACS Nano*, **2020**, 14, 9066-9072	16.7	47
61	Defect-Engineered Atomically Thin MoS Homogeneous Electronics for Logic Inverters. *Advanced Materials*, **2020**, 32, e1906646	24	46
60	Self-Healing Originated van der Waals Homojunctions with Strong Interlayer Coupling for High-Performance Photodiodes. *ACS Nano*, **2019**, 13, 3280-3291	16.7	43
59	Reduced Graphene Oxide Functionalized with Cobalt Ferrite Nanocomposites for Enhanced Efficient and Lightweight Electromagnetic Wave Absorption. *Scientific Reports*, **2016**, 6, 32381	4.9	43
58	A-Site Management Prompts the Dynamic Reconstructed Active Phase of Perovskite Oxide OER Catalysts. *Advanced Energy Materials*, **2021**, 11, 2003755	21.8	42
57	Ultralight, self-powered and self-adaptive motion sensor based on triboelectric nanogenerator for perceptual layer application in Internet of things. *Nano Energy*, **2018**, 48, 312-319	17.1	39
56	Strain modulation on graphene/ZnO nanowire mixed-dimensional van der Waals heterostructure for high-performance photosensor. *Nano Research*, **2017**, 10, 3476-3485	10	37
55	Novel perovskite/TiO2/Si trilayer heterojunctions for high-performance self-powered ultraviolet-visible-near infrared (UV-Vis-NIR) photodetectors. *Nano Research*, **2018**, 11, 1722-1730	10	37
54	A-Site Management for Highly Crystalline Perovskites. *Advanced Materials*, **2020**, 32, e1904702	24	37
53	Bioinspired Tribotronic Resistive Switching Memory for Self-Powered Memorizing Mechanical Stimuli. *ACS Applied Materials & Interfaces*, **2017**, 9, 43822-43829	9.5	32
52	Design and tailoring of patterned ZnO nanostructures for energy conversion applications. *Science China Materials*, **2017**, 60, 793-810	7.1	31
51	Near-ideal van der Waals rectifiers based on all-two-dimensional Schottky junctions. *Nature Communications*, **2021**, 12, 1522	17.4	31
50	CuNiO nanoparticles assembled on graphene as an effective platform for enzyme-free glucose sensing. *Analytica Chimica Acta*, **2015**, 858, 49-54	6.6	29

49	Emerging Conductive Atomic Force Microscopy for Metal Halide Perovskite Materials and Solar Cells. *Advanced Energy Materials*, **2020**, 10, 1903922	21.8	27
48	Hidden Vacancy Benefit in Monolayer 2D Semiconductors. *Advanced Materials*, **2021**, 33, e2007051	24	27
47	Ligand Engineering for Improved All-Inorganic Perovskite Quantum Dot-MoS2 Monolayer Mixed Dimensional van der Waals Phototransistor. *Small Methods*, **2019**, 3, 1900117	12.8	26
46	A self-powered strain senor based on a ZnO/PEDOT:PSS hybrid structure. *RSC Advances*, **2013**, 3, 17011	3.7	26
45	Programmable devices based on reversible solid-state doping of two-dimensional semiconductors with superionic silver iodide. *Nature Electronics*, **2020**, 3, 630-637	28.4	26
44	Fingerprint-inspired electronic skin based on triboelectric nanogenerator for fine texture recognition. *Nano Energy*, **2021**, 85, 106001	17.1	26
43	Strain Engineering in 2D Material-Based Flexible Optoelectronics.. *Small Methods*, **2021**, 5, e2000919	12.8	26
42	Facile synthesis of NiCo2S4 nanowire arrays on 3D graphene foam for high-performance electrochemical capacitors application. *Journal of Materials Science*, **2018**, 53, 10292-10301	4.3	25
41	3D Holey-Graphene Architecture Expedites Ion Transport Kinetics to Push the OER Performance. *Advanced Energy Materials*, **2020**, 10, 2001005	21.8	22
40	Solid and macroporous FeC/N-C nanofibers with enhanced electromagnetic wave absorbability. *Scientific Reports*, **2018**, 8, 16832	4.9	22
39	Ferroelectric polarization-enhanced charge separation in a vanadium-doped ZnO photoelectrochemical system. *Inorganic Chemistry Frontiers*, **2018**, 5, 1533-1539	6.8	21
38	Manipulation of Perovskite Crystallization Kinetics via Lewis Base Additives. *Advanced Functional Materials*, **2021**, 31, 2009425	15.6	21
37	Single-Atom Engineering to Ignite 2D Transition Metal Dichalcogenide Based Catalysis: Fundamentals, Progress, and Beyond. *Chemical Reviews*, **2021**,	68.1	20
36	Atomic-Thin ZnO Sheet for Visible-Blind Ultraviolet Photodetection. *Small*, **2020**, 16, e2005520	11	19
35	Gate-Controlled Polarity-Reversible Photodiodes with Ambipolar 2D Semiconductors. *Advanced Functional Materials*, **2021**, 31, 2007559	15.6	13
34	Phase reconfiguration of multivalent nickel sulfides in hydrogen evolution. *Energy and Environmental Science*,	35.4	9
33	Record-high saturation current in end-bond contacted monolayer MoS2 transistors. *Nano Research*, **2022**, 15, 475	10	9
32	Synergistic engineering of dielectric and magnetic losses in M-Co/RGO nanocomposites for use in high-performance microwave absorption. *Materials Chemistry Frontiers*, **2020**, 4, 3013-3021	7.8	8

31	Ultra-stable ZnO nanobelts in electrochemical environments. *Materials Chemistry Frontiers*, **2021**, 5, 430-437	7.3	7
30	Direct Charge Trapping Multilevel Memory with Graphdiyne/MoS Van der Waals Heterostructure. *Advanced Science*, **2021**, 8, e2101417	13.6	7
29	Grain Boundary Perfection Enabled by Pyridinic Nitrogen Doped Graphdiyne in Hybrid Perovskite. *Advanced Functional Materials*, **2021**, 31, 2104633	15.6	6
28	Thermo-responsive phase-transition polymer grafted magnetic FePt nanoparticles with tunable critical temperature for controlled drug release. *Materials Chemistry Frontiers*, **2018**, 2, 1609-1617	7.8	6
27	Single-Atom Vacancy Doping in Two-Dimensional Transition Metal Dichalcogenides. *Accounts of Materials Research*, **2021**, 2, 655-668	7.5	6
26	A Universal Strategy for Improving the Energy Transmission Efficiency and Load Power of Triboelectric Nanogenerators. *Advanced Energy Materials*, **2019**, 9, 1901881	21.8	5
25	AFM investigation of nanomechanical properties of ZnO nanowires. *RSC Advances*, **2015**, 5, 33445-33449	3.7	5
24	Edge induced band bending in van der Waals heterojunctions: A first principle study. *Nano Research* , **2020**, 13, 701-708	10	5
23	Triboelectricity-assisted transfer of graphene for flexible optoelectronic applications. *Nano Research*, **2016**, 9, 899-907	10	5
22	Ultrathin strain-gated field effect transistor based on In-doped ZnO nanobelts. *APL Materials*, **2017**, 5, 086111	5.7	5
21	Interpretation of Rubidium-based Perovskite Recipes towards Electronic Passivation and Ion Diffusion Mitigation.. *Advanced Materials*, **2022**, e2109998	24	5
20	Interface Engineering in 1D ZnO-Based Heterostructures for Photoelectrical Devices. *Advanced Functional Materials*,2106887	15.6	5
19	Molecule-Upgraded van der Waals Contacts for Schottky-Barrier-Free Electronics. *Advanced Materials*, **2021**, 33, e2104935	24	5
18	Graphdiyne: Bridging SnO2 and Perovskite in Planar Solar Cells. *Angewandte Chemie*, **2020**, 132, 11670-11679	3.6	4
17	Enhanced field emission properties of graphene-based cathodes fabricated by ultrasonic atomization spray.. *RSC Advances*, **2018**, 8, 16207-16213	3.7	4
16	Photovoltaics: Deciphering the NH4PbI3 Intermediate Phase for Simultaneous Improvement on Nucleation and Crystal Growth of Perovskite (Adv. Funct. Mater. 30/2017). *Advanced Functional Materials*, **2017**, 27,	15.6	4
15	Tough and Degradable Self-Healing Elastomer from Synergistic Soft-Hard Segments Design for Biomechano-Robust Artificial Skin. *ACS Nano*, **2021**,	16.7	4
14	Interface Engineering for High-Performance Photoelectrochemical Cells via Atomic Layer Deposition Technique. *Energy Technology*, **2021**, 9, 2000819	3.5	4

13	All-van-der-Waals Barrier-Free Contacts for High-Mobility Transistors.. *Advanced Materials*, **2022**, e2109521	24	4
12	Van Der Waals Heterostructures: Interfacial Charge Behavior Modulation in Perovskite Quantum Dot-Monolayer MoS2 0D-2D Mixed-Dimensional van der Waals Heterostructures (Adv. Funct. Mater. 34/2018). *Advanced Functional Materials*, **2018**, 28, 1870239	15.6	3
11	Point defect induced intervalley scattering for the enhancement of interlayer electron transport in bilayer MoS homojunctions. *Nanoscale*, **2020**, 12, 9859-9865	7.7	2
10	Broadband electromagnetic wave absorption properties and mechanism of MoS2/rGO nanocomposites. *Materials Chemistry Frontiers*,	7.8	2
9	Fully Organic Self-Powered Electronic Skin with Multifunctional and Highly Robust Sensing Capability. *Research*, **2021**, 2021, 9801832	7.8	2
8	Information accessibility oriented self-powered and ripple-inspired fingertip interactors with auditory feedback. *Nano Energy*, **2021**, 87, 106117	17.1	2
7	A van der Waals Ferroelectric Tunnel Junction for Ultrahigh-Temperature Operation Memory.. *Small Methods*, **2022**, e2101583	12.8	2
6	Architecture Design and Interface Engineering of Self-assembly VS/rGO Heterostructures for Ultrathin Absorbent.. *Nano-Micro Letters*, **2022**, 14, 67	19.5	2
5	Endogenous Synergistic Enhanced Self-Powered Photodetector via Multi-Effect Coupling Strategy toward High-Efficiency Ultraviolet Communication. *Advanced Functional Materials*,2202184	15.6	2
4	Flexible Triboelectric Nanogenerators **2018**, 383-423		1
3	Calibration on force upon the surface of single ZnO nanowire applied by AFM tip with different scanning angles. *RSC Advances*, **2015**, 5, 47309-47313	3.7	1
2	Perovskite Crystallization: A-Site Management for Highly Crystalline Perovskites (Adv. Mater. 4/2020). *Advanced Materials*, **2020**, 32, 2070031	24	
1	Interface Engineering for High-Performance Photoelectrochemical Cells via Atomic Layer Deposition Technique. *Energy Technology*, **2021**, 9, 2170023	3.5	