

Qingliang Liao

List of Publications by Year in Descending Order

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Version: 2024-04-10

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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.

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	Interpretation of Rubidium-based Perovskite Recipes towards Electronic Passivation and Ion Diffusion Mitigation.. <i>Advanced Materials</i> , 2022 , e2109998	24	5
101	Record-high saturation current in end-bond contacted monolayer MoS2 transistors. <i>Nano Research</i> , 2022 , 15, 475	10	9
100	A van der Waals Ferroelectric Tunnel Junction for Ultrahigh-Temperature Operation Memory.. <i>Small Methods</i> , 2022 , e2101583	12.8	2
99	Architecture Design and Interface Engineering of Self-assembly VS/rGO Heterostructures for Ultrathin Absorbent.. <i>Nano-Micro Letters</i> , 2022 , 14, 67	19.5	2
98	All-van-der-Waals Barrier-Free Contacts for High-Mobility Transistors.. <i>Advanced Materials</i> , 2022 , e2109524	24	4
97	Tough and Degradable Self-Healing Elastomer from Synergistic Soft-Hard Segments Design for Biomechano-Robust Artificial Skin. <i>ACS Nano</i> , 2021 ,	16.7	4
96	Single-Atom Engineering to Ignite 2D Transition Metal Dichalcogenide Based Catalysis: Fundamentals, Progress, and Beyond. <i>Chemical Reviews</i> , 2021 ,	68.1	20
95	Near-ideal van der Waals rectifiers based on all-two-dimensional Schottky junctions. <i>Nature Communications</i> , 2021 , 12, 1522	17.4	31
94	Grain Boundary Perfection Enabled by Pyridinic Nitrogen Doped Graphdiyne in Hybrid Perovskite. <i>Advanced Functional Materials</i> , 2021 , 31, 2104633	15.6	6
93	Fingerprint-inspired electronic skin based on triboelectric nanogenerator for fine texture recognition. <i>Nano Energy</i> , 2021 , 85, 106001	17.1	26
92	Ultra-stable ZnO nanobelts in electrochemical environments. <i>Materials Chemistry Frontiers</i> , 2021 , 5, 430-437	4.37	7
91	Gate-Controlled Polarity-Reversible Photodiodes with Ambipolar 2D Semiconductors. <i>Advanced Functional Materials</i> , 2021 , 31, 2007559	15.6	13
90	Strain Engineering in 2D Material-Based Flexible Optoelectronics.. <i>Small Methods</i> , 2021 , 5, e2000919	12.8	26
89	Manipulation of Perovskite Crystallization Kinetics via Lewis Base Additives. <i>Advanced Functional Materials</i> , 2021 , 31, 2009425	15.6	21
88	A-Site Management Prompts the Dynamic Reconstructed Active Phase of Perovskite Oxide OER Catalysts. <i>Advanced Energy Materials</i> , 2021 , 11, 2003755	21.8	42
87	Fully Organic Self-Powered Electronic Skin with Multifunctional and Highly Robust Sensing Capability. <i>Research</i> , 2021 , 2021, 9801832	7.8	2
86	Interface Engineering for High-Performance Photoelectrochemical Cells via Atomic Layer Deposition Technique. <i>Energy Technology</i> , 2021 , 9, 2170023	3.5	

85	Single-Atom Vacancy Doping in Two-Dimensional Transition Metal Dichalcogenides. <i>Accounts of Materials Research</i> , 2021 , 2, 655-668	7.5	6
84	Direct Charge Trapping Multilevel Memory with Graphdiyne/MoS Van der Waals Heterostructure. <i>Advanced Science</i> , 2021 , 8, e2101417	13.6	7
83	Information accessibility oriented self-powered and ripple-inspired fingertip interactors with auditory feedback. <i>Nano Energy</i> , 2021 , 87, 106117	17.1	2
82	Molecule-Upgraded van der Waals Contacts for Schottky-Barrier-Free Electronics. <i>Advanced Materials</i> , 2021 , 33, e2104935	24	5
81	Hidden Vacancy Benefit in Monolayer 2D Semiconductors. <i>Advanced Materials</i> , 2021 , 33, e2007051	24	27
80	Interface Engineering for High-Performance Photoelectrochemical Cells via Atomic Layer Deposition Technique. <i>Energy Technology</i> , 2021 , 9, 2000819	3.5	4
79	Self-powered user-interactive electronic skin for programmable touch operation platform. <i>Science Advances</i> , 2020 , 6, eaba4294	14.3	55
78	Edge induced band bending in van der Waals heterojunctions: A first principle study. <i>Nano Research</i> , 2020 , 13, 701-708	10	5
77	Perovskite Crystallization: A-Site Management for Highly Crystalline Perovskites (Adv. Mater. 4/2020). <i>Advanced Materials</i> , 2020 , 32, 2070031	24	
76	Emerging Conductive Atomic Force Microscopy for Metal Halide Perovskite Materials and Solar Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 1903922	21.8	27
75	Graphdiyne: Bridging SnO ₂ and Perovskite in Planar Solar Cells. <i>Angewandte Chemie</i> , 2020 , 132, 11670-11679	13.679	4
74	Graphdiyne: Bridging SnO and Perovskite in Planar Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 11573-11582	16.4	76
73	Programmable devices based on reversible solid-state doping of two-dimensional semiconductors with superionic silver iodide. <i>Nature Electronics</i> , 2020 , 3, 630-637	28.4	26
72	A-Site Management for Highly Crystalline Perovskites. <i>Advanced Materials</i> , 2020 , 32, e1904702	24	37
71	Defect-Engineered Atomically Thin MoS Homogeneous Electronics for Logic Inverters. <i>Advanced Materials</i> , 2020 , 32, e1906646	24	46
70	Highly Robust and Self-Powered Electronic Skin Based on Tough Conductive Self-Healing Elastomer. <i>ACS Nano</i> , 2020 , 14, 9066-9072	16.7	47
69	Single-Atom Vacancy Defect to Trigger High-Efficiency Hydrogen Evolution of MoS. <i>Journal of the American Chemical Society</i> , 2020 , 142, 4298-4308	16.4	287
68	Synergistic engineering of dielectric and magnetic losses in M-Co/RGO nanocomposites for use in high-performance microwave absorption. <i>Materials Chemistry Frontiers</i> , 2020 , 4, 3013-3021	7.8	8

67	Atomic-Thin ZnO Sheet for Visible-Blind Ultraviolet Photodetection. <i>Small</i> , 2020 , 16, e2005520	11	19
66	3D Holey-Graphene Architecture Expedites Ion Transport Kinetics to Push the OER Performance. <i>Advanced Energy Materials</i> , 2020 , 10, 2001005	21.8	22
65	Point defect induced intervalley scattering for the enhancement of interlayer electron transport in bilayer MoS homojunctions. <i>Nanoscale</i> , 2020 , 12, 9859-9865	7.7	2
64	A Universal Strategy for Improving the Energy Transmission Efficiency and Load Power of Triboelectric Nanogenerators. <i>Advanced Energy Materials</i> , 2019 , 9, 1901881	21.8	5
63	Recent Advances in Triboelectric Nanogenerator-Based Health Monitoring. <i>Advanced Functional Materials</i> , 2019 , 29, 1808849	15.6	97
62	Ligand Engineering for Improved All-Inorganic Perovskite Quantum Dot-MoS ₂ Monolayer Mixed Dimensional van der Waals Phototransistor. <i>Small Methods</i> , 2019 , 3, 1900117	12.8	26
61	Interface Engineering for Modulation of Charge Carrier Behavior in ZnO Photoelectrochemical Water Splitting. <i>Advanced Functional Materials</i> , 2019 , 29, 1808032	15.6	95
60	Self-Healing Originated van der Waals Homojunctions with Strong Interlayer Coupling for High-Performance Photodiodes. <i>ACS Nano</i> , 2019 , 13, 3280-3291	16.7	43
59	Strain-Engineered van der Waals Interfaces of Mixed-Dimensional Heterostructure Arrays. <i>ACS Nano</i> , 2019 , 13, 9057-9066	16.7	53
58	Graphene-Based Mixed-Dimensional van der Waals Heterostructures for Advanced Optoelectronics. <i>Advanced Materials</i> , 2019 , 31, e1806411	24	67
57	Kelvin probe force microscopy for perovskite solar cells. <i>Science China Materials</i> , 2019 , 62, 776-789	7.1	52
56	Engineering an Earth-Abundant Element-Based Bifunctional Electrocatalyst for Highly Efficient and Durable Overall Water Splitting. <i>Advanced Functional Materials</i> , 2019 , 29, 1807031	15.6	89
55	Facile synthesis of NiCo ₂ S ₄ nanowire arrays on 3D graphene foam for high-performance electrochemical capacitors application. <i>Journal of Materials Science</i> , 2018 , 53, 10292-10301	4.3	25
54	Development, applications, and future directions of triboelectric nanogenerators. <i>Nano Research</i> , 2018 , 11, 2951-2969	10	66
53	Ferroelectric polarization-enhanced charge separation in a vanadium-doped ZnO photoelectrochemical system. <i>Inorganic Chemistry Frontiers</i> , 2018 , 5, 1533-1539	6.8	21
52	Enhanced field emission properties of graphene-based cathodes fabricated by ultrasonic atomization spray.. <i>RSC Advances</i> , 2018 , 8, 16207-16213	3.7	4
51	Ultralight, self-powered and self-adaptive motion sensor based on triboelectric nanogenerator for perceptual layer application in Internet of things. <i>Nano Energy</i> , 2018 , 48, 312-319	17.1	39
50	Novel perovskite/TiO ₂ /Si trilayer heterojunctions for high-performance self-powered ultraviolet-visible-near infrared (UV-Vis-NIR) photodetectors. <i>Nano Research</i> , 2018 , 11, 1722-1730	10	37

49	Interfacial Charge Behavior Modulation in Perovskite Quantum Dot-Monolayer MoS ₂ 0D-2D Mixed-Dimensional van der Waals Heterostructures. <i>Advanced Functional Materials</i> , 2018 , 28, 1802015	15.6	75
48	Flexible Triboelectric Nanogenerators 2018 , 383-423		1
47	An Amphiphobic Hydraulic Triboelectric Nanogenerator for a Self-Cleaning and Self-Charging Power System. <i>Advanced Functional Materials</i> , 2018 , 28, 1803117	15.6	64
46	Van Der Waals Heterostructures: Interfacial Charge Behavior Modulation in Perovskite Quantum Dot-Monolayer MoS ₂ 0D-2D Mixed-Dimensional van der Waals Heterostructures (Adv. Funct. Mater. 34/2018). <i>Advanced Functional Materials</i> , 2018 , 28, 1870239	15.6	3
45	In Situ Preparation of Cobalt Nanoparticles Decorated in N-Doped Carbon Nanofibers as Excellent Electromagnetic Wave Absorbers. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 22591-22601	9.5	76
44	Enhanced microwave absorption performance of highly dispersed CoNi nanostructures arrayed on graphene. <i>Nano Research</i> , 2018 , 11, 2689-2704	10	82
43	Electromagnetic Shielding Hybrid Nanogenerator for Health Monitoring and Protection. <i>Advanced Functional Materials</i> , 2018 , 28, 1703801	15.6	139
42	Optoelectronics: All-Inorganic Perovskite Quantum Dot-Monolayer MoS ₂ Mixed-Dimensional van der Waals Heterostructure for Ultrasensitive Photodetector (Adv. Sci. 12/2018). <i>Advanced Science</i> , 2018 , 5, 1870078	13.6	78
41	Solid and macroporous FeC/N-C nanofibers with enhanced electromagnetic wave absorbability. <i>Scientific Reports</i> , 2018 , 8, 16832	4.9	22
40	Thermo-responsive phase-transition polymer grafted magnetic FePt nanoparticles with tunable critical temperature for controlled drug release. <i>Materials Chemistry Frontiers</i> , 2018 , 2, 1609-1617	7.8	6
39	Flexible, Cuttable, and Self-Waterproof Bending Strain Sensors Using Microcracked Gold Nanofilms@Paper Substrate. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 4151-4158	9.5	81
38	Self-powered artificial electronic skin for high-resolution pressure sensing. <i>Nano Energy</i> , 2017 , 32, 389-396	19.1	101
37	Service Behavior of Multifunctional Triboelectric Nanogenerators. <i>Advanced Materials</i> , 2017 , 29, 1606703	24	88
36	Deciphering the NH ₄ PbI ₃ Intermediate Phase for Simultaneous Improvement on Nucleation and Crystal Growth of Perovskite. <i>Advanced Functional Materials</i> , 2017 , 27, 1701804	15.6	89
35	Poly(4-styrenesulfonate)-induced sulfur vacancy self-healing strategy for monolayer MoS ₂ homojunction photodiode. <i>Nature Communications</i> , 2017 , 8, 15881	17.4	129
34	Strain modulation on graphene/ZnO nanowire mixed-dimensional van der Waals heterostructure for high-performance photosensor. <i>Nano Research</i> , 2017 , 10, 3476-3485	10	37
33	Ultrasensitive and stretchable resistive strain sensors designed for wearable electronics. <i>Materials Horizons</i> , 2017 , 4, 502-510	14.4	151
32	Enhanced photoelectrochemical efficiency and stability using a conformal TiO ₂ film on a black silicon photoanode. <i>Nature Energy</i> , 2017 , 2,	62.3	186

31	Investigation on the broadband electromagnetic wave absorption properties and mechanism of Co3O4-nanosheets/reduced-graphene-oxide composite. <i>Nano Research</i> , 2017 , 10, 980-990	10	127
30	Design and tailoring of patterned ZnO nanostructures for energy conversion applications. <i>Science China Materials</i> , 2017 , 60, 793-810	7.1	31
29	Ultrathin strain-gated field effect transistor based on In-doped ZnO nanobelts. <i>APL Materials</i> , 2017 , 5, 086111	5.7	5
28	Photovoltaics: Deciphering the NH4PbI3 Intermediate Phase for Simultaneous Improvement on Nucleation and Crystal Growth of Perovskite (Adv. Funct. Mater. 30/2017). <i>Advanced Functional Materials</i> , 2017 , 27,	15.6	4
27	Bioinspired Tribotronic Resistive Switching Memory for Self-Powered Memorizing Mechanical Stimuli. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 43822-43829	9.5	32
26	Reduced Graphene Oxide Functionalized with Cobalt Ferrite Nanocomposites for Enhanced Efficient and Lightweight Electromagnetic Wave Absorption. <i>Scientific Reports</i> , 2016 , 6, 32381	4.9	43
25	A highly shape-adaptive, stretchable design based on conductive liquid for energy harvesting and self-powered biomechanical monitoring. <i>Science Advances</i> , 2016 , 2, e1501624	14.3	221
24	The enhanced performance of piezoelectric nanogenerator via suppressing screening effect with Au particles/ZnO nanoarrays Schottky junction. <i>Nano Research</i> , 2016 , 9, 372-379	10	47
23	Triboelectricity-assisted transfer of graphene for flexible optoelectronic applications. <i>Nano Research</i> , 2016 , 9, 899-907	10	5
22	Temperature-dependent electrochemical capacitive performance of the Fe2O3 hollow nanoshuttles as supercapacitor electrodes. <i>Journal of Colloid and Interface Science</i> , 2016 , 466, 291-6	9.3	67
21	Nonenzymatic Glucose Sensor Based on In Situ Reduction of Ni/NiO-Graphene Nanocomposite. <i>Sensors</i> , 2016 , 16,	3.8	54
20	Strain Modulation in Graphene/ZnO Nanorod Film Schottky Junction for Enhanced Photosensing Performance. <i>Advanced Functional Materials</i> , 2016 , 26, 1347-1353	15.6	77
19	Stretchable and Waterproof Self-Charging Power System for Harvesting Energy from Diverse Deformation and Powering Wearable Electronics. <i>ACS Nano</i> , 2016 , 10, 6519-25	16.7	160
18	A Highly Stretchable ZnO@Fiber-Based Multifunctional Nanosensor for Strain/Temperature/UV Detection. <i>Advanced Functional Materials</i> , 2016 , 26, 3074-3081	15.6	195
17	Electromagnetic wave absorption in reduced graphene oxide functionalized with Fe3O4/Fe nanorings. <i>Nano Research</i> , 2016 , 9, 2018-2025	10	136
16	ZnO nanostructures in enzyme biosensors. <i>Science China Materials</i> , 2015 , 58, 60-76	7.1	58
15	Flexible and Highly Sensitive Strain Sensors Fabricated by Pencil Drawn for Wearable Monitor. <i>Advanced Functional Materials</i> , 2015 , 25, 2395-2401	15.6	359
14	Gold nanoparticle/ZnO nanorod hybrids for enhanced reactive oxygen species generation and photodynamic therapy. <i>Nano Research</i> , 2015 , 8, 2004-2014	10	68

13	High on-off ratio improvement of ZnO-based forming-free memristor by surface hydrogen annealing. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 7382-8	9.5	83
12	Stretchable-Rubber-Based Triboelectric Nanogenerator and Its Application as Self-Powered Body Motion Sensors. <i>Advanced Functional Materials</i> , 2015 , 25, 3688-3696	15.6	261
11	AFM investigation of nanomechanical properties of ZnO nanowires. <i>RSC Advances</i> , 2015 , 5, 33445-33449	3.7	5
10	Self-Recovering Triboelectric Nanogenerator as Active Multifunctional Sensors. <i>Advanced Functional Materials</i> , 2015 , 25, 6489-6494	15.6	54
9	Calibration on force upon the surface of single ZnO nanowire applied by AFM tip with different scanning angles. <i>RSC Advances</i> , 2015 , 5, 47309-47313	3.7	1
8	CuNiO nanoparticles assembled on graphene as an effective platform for enzyme-free glucose sensing. <i>Analytica Chimica Acta</i> , 2015 , 858, 49-54	6.6	29
7	Functional nanogenerators as vibration sensors enhanced by piezotronic effects. <i>Nano Research</i> , 2014 , 7, 190-198	10	47
6	Self-Powered Trajectory, Velocity, and Acceleration Tracking of a Moving Object/Body using a Triboelectric Sensor. <i>Advanced Functional Materials</i> , 2014 , 24, 7488-7494	15.6	135
5	A self-powered strain sensor based on a ZnO/PEDOT:PSS hybrid structure. <i>RSC Advances</i> , 2013 , 3, 17011	3.7	26
4	Phase reconfiguration of multivalent nickel sulfides in hydrogen evolution. <i>Energy and Environmental Science</i> ,	35.4	9
3	Interface Engineering in 1D ZnO-Based Heterostructures for Photoelectrical Devices. <i>Advanced Functional Materials</i> , 2106887	15.6	5
2	Broadband electromagnetic wave absorption properties and mechanism of MoS ₂ /rGO nanocomposites. <i>Materials Chemistry Frontiers</i> ,	7.8	2
1	Endogenous Synergistic Enhanced Self-Powered Photodetector via Multi-Effect Coupling Strategy toward High-Efficiency Ultraviolet Communication. <i>Advanced Functional Materials</i> , 2202184	15.6	2