

# Qingliang Liao

## List of Publications by Year in descending order

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104  
papers

8,360  
citations

31976

53  
h-index

46799

89  
g-index

105  
all docs

105  
docs citations

105  
times ranked

9983  
citing authors

#	ARTICLE	IF	CITATIONS
1	Record-high saturation current in end-bond contacted monolayer MoS <sub>2</sub> transistors. Nano Research, 2022, 15, 475-481.	10.4	24
2	Interface Engineering in 1D ZnO-Based Heterostructures for Photoelectrical Devices. Advanced Functional Materials, 2022, 32, 2106887.	14.9	27
3	Single-Atom Engineering to Ignite 2D Transition Metal Dichalcogenide Based Catalysis: Fundamentals, Progress, and Beyond. Chemical Reviews, 2022, 122, 1273-1348.	47.7	104
4	Phase reconfiguration of multivalent nickel sulfides in hydrogen evolution. Energy and Environmental Science, 2022, 15, 633-644.	30.8	68
5	Synergistic-engineered van der Waals photodiodes with high efficiency. Informa-Ån-Å-Materi-Åily, 2022, 4, .	17.3	16
6	Interpretation of Rubidium-Based Perovskite Recipes toward Electronic Passivation and Ion-Diffusion Mitigation. Advanced Materials, 2022, 34, e2109998.	21.0	29
7	Omnibearing Interpretation of External Ions Passivated Ion Migration in Mixed Halide Perovskites. Nano Letters, 2022, 22, 1467-1474.	9.1	17
8	A van der Waals Ferroelectric Tunnel Junction for Ultrahigh-Temperature Operation Memory. Small Methods, 2022, 6, e2101583.	8.6	22
9	Architecture Design and Interface Engineering of Self-assembly VS <sub>4</sub> /rGO Heterostructures for Ultrathin Absorbent. Nano-Micro Letters, 2022, 14, 67.	27.0	33
10	All-van-der-Waals Barrier-Free Contacts for High-Mobility Transistors. Advanced Materials, 2022, 34, e2109521.	21.0	38
11	Endogenous Synergistic Enhanced Self-Powered Photodetector via Multi-Effect Coupling Strategy toward High-Efficiency Ultraviolet Communication. Advanced Functional Materials, 2022, 32, .	14.9	20
12	Ultra-stable ZnO nanobelts in electrochemical environments. Materials Chemistry Frontiers, 2021, 5, 430-437.	5.9	15
13	Gate-Controlled Polarity-Reversible Photodiodes with Ambipolar 2D Semiconductors. Advanced Functional Materials, 2021, 31, 2007559.	14.9	38
14	Strain Engineering in 2D Material-Based Flexible Optoelectronics. Small Methods, 2021, 5, e2000919.	8.6	80
15	Broadband electromagnetic wave absorption properties and mechanism of MoS <sub>2</sub> /rGO nanocomposites. Materials Chemistry Frontiers, 2021, 5, 5063-5070.	5.9	13
16	Manipulation of Perovskite Crystallization Kinetics via Lewis Base Additives. Advanced Functional Materials, 2021, 31, 2009425.	14.9	61
17	Å-Site Management Prompts the Dynamic Reconstructed Active Phase of Perovskite Oxide OER Catalysts. Advanced Energy Materials, 2021, 11, 2003755.	19.5	171
18	Fully Organic Self-Powered Electronic Skin with Multifunctional and Highly Robust Sensing Capability. Research, 2021, 2021, 9801832.	5.7	9

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19	Interface Engineering for High-Performance Photoelectrochemical Cells via Atomic Layer Deposition Technique. <i>Energy Technology</i> , 2021, 9, 2170023.	3.8	0
20	Near-ideal van der Waals rectifiers based on all-two-dimensional Schottky junctions. <i>Nature Communications</i> , 2021, 12, 1522.	12.8	103
21	Grain Boundary Perfection Enabled by Pyridinic Nitrogen Doped Graphdiyne in Hybrid Perovskite. <i>Advanced Functional Materials</i> , 2021, 31, 2104633.	14.9	27
22	Fingerprint-inspired electronic skin based on triboelectric nanogenerator for fine texture recognition. <i>Nano Energy</i> , 2021, 85, 106001.	16.0	65
23	Single-Atom Vacancy Doping in Two-Dimensional Transition Metal Dichalcogenides. <i>Accounts of Materials Research</i> , 2021, 2, 655-668.	11.7	32
24	Direct Charge Trapping Multilevel Memory with Graphdiyne/MoS <sub>2</sub> Van der Waals Heterostructure. <i>Advanced Science</i> , 2021, 8, e2101417.	11.2	45
25	Information accessibility oriented self-powered and ripple-inspired fingertip interactors with auditory feedback. <i>Nano Energy</i> , 2021, 87, 106117.	16.0	7
26	Molecule-Engineered van der Waals Contacts for Schottky-Barrier-Free Electronics. <i>Advanced Materials</i> , 2021, 33, e2104935.	21.0	26
27	Hidden Vacancy Benefit in Monolayer 2D Semiconductors. <i>Advanced Materials</i> , 2021, 33, e2007051.	21.0	65
28	Interface Engineering for High-Performance Photoelectrochemical Cells via Atomic Layer Deposition Technique. <i>Energy Technology</i> , 2021, 9, 2000819.	3.8	4
29	Tough and Degradable Self-Healing Elastomer from Synergistic Soft-Hard Segments Design for Biomechano-Robust Artificial Skin. <i>ACS Nano</i> , 2021, 15, 20656-20665.	14.6	35
30	Site Management for Highly Crystalline Perovskites. <i>Advanced Materials</i> , 2020, 32, e1904702.	21.0	62
31	Defect-Engineered Atomically Thin MoS <sub>2</sub> Homogeneous Electronics for Logic Inverters. <i>Advanced Materials</i> , 2020, 32, e1906646.	21.0	94
32	Highly Robust and Self-Powered Electronic Skin Based on Tough Conductive Self-Healing Elastomer. <i>ACS Nano</i> , 2020, 14, 9066-9072.	14.6	90
33	Single-Atom Vacancy Defect to Trigger High-Efficiency Hydrogen Evolution of MoS <sub>2</sub> . <i>Journal of the American Chemical Society</i> , 2020, 142, 4298-4308.	13.7	585
34	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.	5.9	23
35	Atomically Thin ZnO Sheet for Visible-Blind Ultraviolet Photodetection. <i>Small</i> , 2020, 16, e2005520.	10.0	45
36	Self-powered user-interactive electronic skin for programmable touch operation platform. <i>Science Advances</i> , 2020, 6, eaba4294.	10.3	112

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37	Edge induced band bending in van der Waals heterojunctions: A first principle study. Nano Research, 2020, 13, 701-708.	10.4	12
38	Perovskite Crystallization: Site Management for Highly Crystalline Perovskites (Adv. Mater. 4/2020). Advanced Materials, 2020, 32, 2070031.	21.0	0
39	Emerging Conductive Atomic Force Microscopy for Metal Halide Perovskite Materials and Solar Cells. Advanced Energy Materials, 2020, 10, 1903922.	19.5	63
40	Graphdiyne: Bridging SnO <sub>2</sub> and Perovskite in Planar Solar Cells. Angewandte Chemie, 2020, 132, 11670-11679.	2.0	17
41	Graphdiyne: Bridging SnO <sub>2</sub> and Perovskite in Planar Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 11573-11582.	13.8	171
42	3D Honeycomb Graphene Architecture Expedites Ion Transport Kinetics to Push the OER Performance. Advanced Energy Materials, 2020, 10, 2001005.	19.5	41
43	Point defect induced intervalley scattering for the enhancement of interlayer electron transport in bilayer MoS <sub>2</sub> homojunctions. Nanoscale, 2020, 12, 9859-9865.	5.6	4
44	Programmable devices based on reversible solid-state doping of two-dimensional semiconductors with superionic silver iodide. Nature Electronics, 2020, 3, 630-637.	26.0	61
45	Strain-Engineered van der Waals Interfaces of Mixed-Dimensional Heterostructure Arrays. ACS Nano, 2019, 13, 9057-9066.	14.6	94
46	Graphene-Based Mixed-Dimensional van der Waals Heterostructures for Advanced Optoelectronics. Advanced Materials, 2019, 31, e1806411.	21.0	115
47	A Universal Strategy for Improving the Energy Transmission Efficiency and Load Power of Triboelectric Nanogenerators. Advanced Energy Materials, 2019, 9, 1901881.	19.5	11
48	Recent Advances in Triboelectric Nanogenerator-Based Health Monitoring. Advanced Functional Materials, 2019, 29, 1808849.	14.9	167
49	Ligand Engineering for Improved All-Inorganic Perovskite Quantum Dot-MoS <sub>2</sub> Monolayer Mixed Dimensional van der Waals Phototransistor. Small Methods, 2019, 3, 1900117.	8.6	40
50	Interface Engineering for Modulation of Charge Carrier Behavior in ZnO Photoelectrochemical Water Splitting. Advanced Functional Materials, 2019, 29, 1808032.	14.9	153
51	Self-Healing Originated van der Waals Homo Junctions with Strong Interlayer Coupling for High-Performance Photodiodes. ACS Nano, 2019, 13, 3280-3291.	14.6	69
52	Kelvin probe force microscopy for perovskite solar cells. Science China Materials, 2019, 62, 776-789.	6.3	93
53	Engineering an Earth-Abundant Element-Based Bifunctional Electrocatalyst for Highly Efficient and Durable Overall Water Splitting. Advanced Functional Materials, 2019, 29, 1807031.	14.9	146
54	Facile synthesis of NiCo <sub>2</sub> S <sub>4</sub> nanowire arrays on 3D graphene foam for high-performance electrochemical capacitors application. Journal of Materials Science, 2018, 53, 10292-10301.	3.7	38

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55	Development, applications, and future directions of triboelectric nanogenerators. <i>Nano Research</i> , 2018, 11, 2951-2969.	10.4	112
56	Ferroelectric polarization-enhanced charge separation in a vanadium-doped ZnO photoelectrochemical system. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 1533-1539.	6.0	27
57	Enhanced field emission properties of graphene-based cathodes fabricated by ultrasonic atomization spray. <i>RSC Advances</i> , 2018, 8, 16207-16213.	3.6	6
58	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.	16.0	54
59	Novel perovskite/TiO <sub>2</sub> /Si trilayer heterojunctions for high-performance self-powered ultraviolet-visible-near infrared (UV-Vis-NIR) photodetectors. <i>Nano Research</i> , 2018, 11, 1722-1730.	10.4	47
60	Enhanced microwave absorption performance of highly dispersed CoNi nanostructures arrayed on graphene. <i>Nano Research</i> , 2018, 11, 2689-2704.	10.4	123
61	Electromagnetic Shielding Hybrid Nanogenerator for Health Monitoring and Protection. <i>Advanced Functional Materials</i> , 2018, 28, 1703801.	14.9	178
62	Optoelectronics: All-Inorganic Perovskite Quantum Dot-Monolayer MoS <sub>2</sub> Mixed-Dimensional van der Waals Heterostructure for Ultrasensitive Photodetector ( <i>Adv. Sci.</i> 12/2018). <i>Advanced Science</i> , 2018, 5, 1870078.	11.2	0
63	Solid and macroporous Fe <sub>3</sub> C/N-C nanofibers with enhanced electromagnetic wave absorbability. <i>Scientific Reports</i> , 2018, 8, 16832.	3.3	35
64	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.	5.9	9
65	Interfacial Charge Behavior Modulation in Perovskite Quantum Dot-Monolayer MoS <sub>2</sub> 0D-2D Mixed-Dimensional van der Waals Heterostructures. <i>Advanced Functional Materials</i> , 2018, 28, 1802015.	14.9	107
66	An Amphiphobic Hydraulic Triboelectric Nanogenerator for a Self-Cleaning and Self-Charging Power System. <i>Advanced Functional Materials</i> , 2018, 28, 1803117.	14.9	94
67	Van Der Waals Heterostructures: Interfacial Charge Behavior Modulation in Perovskite Quantum Dot-Monolayer MoS <sub>2</sub> 0D-2D Mixed-Dimensional van der Waals Heterostructures ( <i>Adv. Funct. Mater.</i> )	14.9	107
68	In Situ Preparation of Cobalt Nanoparticles Decorated in N-Doped Carbon Nanofibers as Excellent Electromagnetic Wave Absorbers. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 22591-22601.	8.0	124
69	Flexible, Cuttable, and Self-Waterproof Bending Strain Sensors Using Microcracked Gold Nanofilms@Paper Substrate. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 4151-4158.	8.0	107
70	Self-powered artificial electronic skin for high-resolution pressure sensing. <i>Nano Energy</i> , 2017, 32, 389-396.	16.0	125
71	Service Behavior of Multifunctional Triboelectric Nanogenerators. <i>Advanced Materials</i> , 2017, 29, 1606703.	21.0	106
72	Deciphering the NH <sub>4</sub> Pb <sub>3</sub> Intermediate Phase for Simultaneous Improvement on Nucleation and Crystal Growth of Perovskite. <i>Advanced Functional Materials</i> , 2017, 27, 1701804.	14.9	117

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73	Poly(4-styrenesulfonate)-induced sulfur vacancy self-healing strategy for monolayer MoS <sub>2</sub> homojunction photodiode. <i>Nature Communications</i> , 2017, 8, 15881.	12.8	191
74	Strain modulation on graphene/ZnO nanowire mixed-dimensional van der Waals heterostructure for high-performance photosensor. <i>Nano Research</i> , 2017, 10, 3476-3485.	10.4	41
75	Ultrasensitive and stretchable resistive strain sensors designed for wearable electronics. <i>Materials Horizons</i> , 2017, 4, 502-510.	12.2	206
76	Enhanced photoelectrochemical efficiency and stability using a conformal TiO <sub>2</sub> film on a black silicon photoanode. <i>Nature Energy</i> , 2017, 2, .	39.5	217
77	Investigation on the broadband electromagnetic wave absorption properties and mechanism of Co <sub>3</sub> O <sub>4</sub> -nanosheets/reduced-graphene-oxide composite. <i>Nano Research</i> , 2017, 10, 980-990.	10.4	154
78	Design and tailoring of patterned ZnO nanostructures for energy conversion applications. <i>Science China Materials</i> , 2017, 60, 793-810.	6.3	34
79	Ultrathin strain-gated field effect transistor based on In-doped ZnO nanobelts. <i>APL Materials</i> , 2017, 5, .	5.1	7
80	Photovoltaics: Deciphering the NH <sub>4</sub> <sup>+</sup> Pb <sub>3</sub> <sup>2+</sup> Intermediate Phase for Simultaneous Improvement on Nucleation and Crystal Growth of Perovskite ( <i>Adv. Funct. Mater.</i> 30/2017). <i>Advanced Functional Materials</i> , 2017, 27, .	14.9	6
81	Bioinspired Tribotronic Resistive Switching Memory for Self-Powered Memorizing Mechanical Stimuli. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 43822-43829.	8.0	42
82	Nonenzymatic Glucose Sensor Based on In Situ Reduction of Ni/NiO-Graphene Nanocomposite. <i>Sensors</i> , 2016, 16, 1791.	3.8	66
83	Strain Modulation in Graphene/ZnO Nanorod Film Schottky Junction for Enhanced Photosensing Performance. <i>Advanced Functional Materials</i> , 2016, 26, 1347-1353.	14.9	85
84	Stretchable and Waterproof Self-Charging Power System for Harvesting Energy from Diverse Deformation and Powering Wearable Electronics. <i>ACS Nano</i> , 2016, 10, 6519-6525.	14.6	182
85	A Highly Stretchable ZnO@Fiber-Based Multifunctional Nanosensor for Strain/Temperature/UV Detection. <i>Advanced Functional Materials</i> , 2016, 26, 3074-3081.	14.9	239
86	Electromagnetic wave absorption in reduced graphene oxide functionalized with Fe <sub>3</sub> O <sub>4</sub> /Fe nanorings. <i>Nano Research</i> , 2016, 9, 2018-2025.	10.4	161
87	Reduced Graphene Oxide Functionalized with Cobalt Ferrite Nanocomposites for Enhanced Efficient and Lightweight Electromagnetic Wave Absorption. <i>Scientific Reports</i> , 2016, 6, 32381.	3.3	52
88	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.	10.3	274
89	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.	10.4	60
90	Triboelectricity-assisted transfer of graphene for flexible optoelectronic applications. <i>Nano Research</i> , 2016, 9, 899-907.	10.4	6

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91	Temperature-dependent electrochemical capacitive performance of the $\text{Fe}_2\text{O}_3$ hollow nanoshuttles as supercapacitor electrodes. <i>Journal of Colloid and Interface Science</i> , 2016, 466, 291-296.	9.4	94
92	Self-Recovering Triboelectric Nanogenerator as Active Multifunctional Sensors. <i>Advanced Functional Materials</i> , 2015, 25, 6489-6494.	14.9	63
93	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.	3.6	1
94	CuNiO nanoparticles assembled on graphene as an effective platform for enzyme-free glucose sensing. <i>Analytica Chimica Acta</i> , 2015, 858, 49-54.	5.4	35
95	ZnO nanostructures in enzyme biosensors. <i>Science China Materials</i> , 2015, 58, 60-76.	6.3	70
96	Flexible and Highly Sensitive Strain Sensors Fabricated by Pencil Drawn for Wearable Monitor. <i>Advanced Functional Materials</i> , 2015, 25, 2395-2401.	14.9	439
97	Gold nanoparticle/ZnO nanorod hybrids for enhanced reactive oxygen species generation and photodynamic therapy. <i>Nano Research</i> , 2015, 8, 2004-2014.	10.4	85
98	High On-Off Ratio Improvement of ZnO-Based Forming-Free Memristor by Surface Hydrogen Annealing. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 7382-7388.	8.0	102
99	Stretchable Rubber-Based Triboelectric Nanogenerator and Its Application as Self-Powered Body Motion Sensors. <i>Advanced Functional Materials</i> , 2015, 25, 3688-3696.	14.9	320
100	AFM investigation of nanomechanical properties of ZnO nanowires. <i>RSC Advances</i> , 2015, 5, 33445-33449.	3.6	6
101	Functional nanogenerators as vibration sensors enhanced by piezotronic effects. <i>Nano Research</i> , 2014, 7, 190-198.	10.4	56
102	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.	14.9	161
103	A self-powered strain sensor based on a ZnO/PEDOT:PSS hybrid structure. <i>RSC Advances</i> , 2013, 3, 17011.	3.6	30
104	STRUCTURE AND MAGNETIC PROPERTY OF NI-DOPED ZNO NANORODS. , 2012, , .		0