

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	Single-Atom Vacancy Defect to Trigger High-Efficiency Hydrogen Evolution of MoS ₂ . Journal of the American Chemical Society, 2020, 142, 4298-4308.	13.7	585
2	Flexible and Highly Sensitive Strain Sensors Fabricated by Pencil Drawn for Wearable Monitor. Advanced Functional Materials, 2015, 25, 2395-2401.	14.9	439
3	Stretchable Rubber-Based Triboelectric Nanogenerator and Its Application as Self-Powered Body Motion Sensors. Advanced Functional Materials, 2015, 25, 3688-3696.	14.9	320
4	A highly shape-adaptive, stretchable design based on conductive liquid for energy harvesting and self-powered biomechanical monitoring. Science Advances, 2016, 2, e1501624.	10.3	274
5	A Highly Stretchable ZnO@Fiber-Based Multifunctional Nanosensor for Strain/Temperature/UV Detection. Advanced Functional Materials, 2016, 26, 3074-3081.	14.9	239
6	Enhanced photoelectrochemical efficiency and stability using a conformal TiO ₂ film on a black silicon photoanode. Nature Energy, 2017, 2, .	39.5	217
7	Ultrasensitive and stretchable resistive strain sensors designed for wearable electronics. Materials Horizons, 2017, 4, 502-510.	12.2	206
8	Poly(4-styrenesulfonate)-induced sulfur vacancy self-healing strategy for monolayer MoS ₂ homojunction photodiode. Nature Communications, 2017, 8, 15881.	12.8	191
9	Stretchable and Waterproof Self-Charging Power System for Harvesting Energy from Diverse Deformation and Powering Wearable Electronics. ACS Nano, 2016, 10, 6519-6525.	14.6	182
10	Electromagnetic Shielding Hybrid Nanogenerator for Health Monitoring and Protection. Advanced Functional Materials, 2018, 28, 1703801.	14.9	178
11	Graphdiyne: Bridging SnO ₂ and Perovskite in Planar Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 11573-11582.	13.8	171
12	Site Management Prompts the Dynamic Reconstructed Active Phase of Perovskite Oxide OER Catalysts. Advanced Energy Materials, 2021, 11, 2003755.	19.5	171
13	Recent Advances in Triboelectric Nanogenerator-Based Health Monitoring. Advanced Functional Materials, 2019, 29, 1808849.	14.9	167
14	Self-Powered Trajectory, Velocity, and Acceleration Tracking of a Moving Object/Body using a Triboelectric Sensor. Advanced Functional Materials, 2014, 24, 7488-7494.	14.9	161
15	Electromagnetic wave absorption in reduced graphene oxide functionalized with Fe ₃ O ₄ /Fe nanorings. Nano Research, 2016, 9, 2018-2025.	10.4	161
16	Investigation on the broadband electromagnetic wave absorption properties and mechanism of Co ₃ O ₄ -nanosheets/reduced-graphene-oxide composite. Nano Research, 2017, 10, 980-990.	10.4	154
17	Interface Engineering for Modulation of Charge Carrier Behavior in ZnO Photoelectrochemical Water Splitting. Advanced Functional Materials, 2019, 29, 1808032.	14.9	153
18	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

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19	Self-powered artificial electronic skin for high-resolution pressure sensing. <i>Nano Energy</i> , 2017, 32, 389-396.	16.0	125
20	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.	8.0	124
21	Enhanced microwave absorption performance of highly dispersed CoNi nanostructures arrayed on graphene. <i>Nano Research</i> , 2018, 11, 2689-2704.	10.4	123
22	Deciphering the NH_4Pb_3 Intermediate Phase for Simultaneous Improvement on Nucleation and Crystal Growth of Perovskite. <i>Advanced Functional Materials</i> , 2017, 27, 1701804.	14.9	117
23	Graphene-Based Mixed-Dimensional van der Waals Heterostructures for Advanced Optoelectronics. <i>Advanced Materials</i> , 2019, 31, e1806411.	21.0	115
24	Development, applications, and future directions of triboelectric nanogenerators. <i>Nano Research</i> , 2018, 11, 2951-2969.	10.4	112
25	Self-powered user-interactive electronic skin for programmable touch operation platform. <i>Science Advances</i> , 2020, 6, eaba4294.	10.3	112
26	Flexible, Cuttable, and Self-Waterproof Bending Strain Sensors Using Microcracked Gold Nanofilms@Paper Substrate. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 4151-4158.	8.0	107
27	Interfacial Charge Behavior Modulation in Perovskite Quantum Dot-Monolayer MoS_2 2D Mixed-Dimensional van der Waals Heterostructures. <i>Advanced Functional Materials</i> , 2018, 28, 1802015.	14.9	107
28	Service Behavior of Multifunctional Triboelectric Nanogenerators. <i>Advanced Materials</i> , 2017, 29, 1606703.	21.0	106
29	Single-Atom Engineering to Ignite 2D Transition Metal Dichalcogenide Based Catalysis: Fundamentals, Progress, and Beyond. <i>Chemical Reviews</i> , 2022, 122, 1273-1348.	47.7	104
30	Near-ideal van der Waals rectifiers based on all-two-dimensional Schottky junctions. <i>Nature Communications</i> , 2021, 12, 1522.	12.8	103
31	High On-Off Ratio Improvement of ZnO-Based Forming-Free Memristor by Surface Hydrogen Annealing. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 7382-7388.	8.0	102
32	Temperature-dependent electrochemical capacitive performance of the Fe_2O_3 hollow nanoshuttles as supercapacitor electrodes. <i>Journal of Colloid and Interface Science</i> , 2016, 466, 291-296.	9.4	94
33	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
34	Strain-Engineered van der Waals Interfaces of Mixed-Dimensional Heterostructure Arrays. <i>ACS Nano</i> , 2019, 13, 9057-9066.	14.6	94
35	Defect-Engineered Atomically Thin MoS_2 Homogeneous Electronics for Logic Inverters. <i>Advanced Materials</i> , 2020, 32, e1906646.	21.0	94
36	Kelvin probe force microscopy for perovskite solar cells. <i>Science China Materials</i> , 2019, 62, 776-789.	6.3	93

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37	Highly Robust and Self-Powered Electronic Skin Based on Tough Conductive Self-Healing Elastomer. ACS Nano, 2020, 14, 9066-9072.	14.6	90
38	Gold nanoparticle/ZnO nanorod hybrids for enhanced reactive oxygen species generation and photodynamic therapy. Nano Research, 2015, 8, 2004-2014.	10.4	85
39	Strain Modulation in Graphene/ZnO Nanorod Film Schottky Junction for Enhanced Photosensing Performance. Advanced Functional Materials, 2016, 26, 1347-1353.	14.9	85
40	Strain Engineering in 2D Material-Based Flexible Optoelectronics. Small Methods, 2021, 5, e2000919.	8.6	80
41	ZnO nanostructures in enzyme biosensors. Science China Materials, 2015, 58, 60-76.	6.3	70
42	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
43	Phase reconfiguration of multivalent nickel sulfides in hydrogen evolution. Energy and Environmental Science, 2022, 15, 633-644.	30.8	68
44	Nonenzymatic Glucose Sensor Based on In Situ Reduction of Ni/NiO-Graphene Nanocomposite. Sensors, 2016, 16, 1791.	3.8	66
45	Fingerprint-inspired electronic skin based on triboelectric nanogenerator for fine texture recognition. Nano Energy, 2021, 85, 106001.	16.0	65
46	Hidden Vacancy Benefit in Monolayer 2D Semiconductors. Advanced Materials, 2021, 33, e2007051.	21.0	65
47	Self-Recovering Triboelectric Nanogenerator as Active Multifunctional Sensors. Advanced Functional Materials, 2015, 25, 6489-6494.	14.9	63
48	Emerging Conductive Atomic Force Microscopy for Metal Halide Perovskite Materials and Solar Cells. Advanced Energy Materials, 2020, 10, 1903922.	19.5	63
49	Site Management for Highly Crystalline Perovskites. Advanced Materials, 2020, 32, e1904702.	21.0	62
50	Manipulation of Perovskite Crystallization Kinetics via Lewis Base Additives. Advanced Functional Materials, 2021, 31, 2009425.	14.9	61
51	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
52	The enhanced performance of piezoelectric nanogenerator via suppressing screening effect with Au particles/ZnO nanoarrays Schottky junction. Nano Research, 2016, 9, 372-379.	10.4	60
53	Functional nanogenerators as vibration sensors enhanced by piezotronic effects. Nano Research, 2014, 7, 190-198.	10.4	56
54	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.	16.0	54

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55	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
56	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.	10.4	47
57	Atomic-thin ZnO Sheet for Visible-blind Ultraviolet Photodetection. <i>Small</i> , 2020, 16, e2005520.	10.0	45
58	Direct Charge Trapping Multilevel Memory with Graphdiyne/MoS ₂ Van der Waals Heterostructure. <i>Advanced Science</i> , 2021, 8, e2101417.	11.2	45
59	Bioinspired Tribotronic Resistive Switching Memory for Self-Powered Memorizing Mechanical Stimuli. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 43822-43829.	8.0	42
60	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
61	3D Holey Graphene Architecture Expedites Ion Transport Kinetics to Push the OER Performance. <i>Advanced Energy Materials</i> , 2020, 10, 2001005.	19.5	41
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.	8.6	40
63	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.	3.7	38
64	Gate-Controlled Polarity-Reversible Photodiodes with Ambipolar 2D Semiconductors. <i>Advanced Functional Materials</i> , 2021, 31, 2007559.	14.9	38
65	All-van der Waals Barrier-free Contacts for High-mobility Transistors. <i>Advanced Materials</i> , 2022, 34, e2109521.	21.0	38
66	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
67	Solid and macroporous Fe ₃ C/N-C nanofibers with enhanced electromagnetic wave absorbability. <i>Scientific Reports</i> , 2018, 8, 16832.	3.3	35
68	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
69	Design and tailoring of patterned ZnO nanostructures for energy conversion applications. <i>Science China Materials</i> , 2017, 60, 793-810.	6.3	34
70	Architecture Design and Interface Engineering of Self-assembly VS ₄ /rGO Heterostructures for Ultrathin Absorbent. <i>Nano-Micro Letters</i> , 2022, 14, 67.	27.0	33
71	Single-Atom Vacancy Doping in Two-Dimensional Transition Metal Dichalcogenides. <i>Accounts of Materials Research</i> , 2021, 2, 655-668.	11.7	32
72	A self-powered strain sensor based on a ZnO/PEDOT:PSS hybrid structure. <i>RSC Advances</i> , 2013, 3, 17011.	3.6	30

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73	Interpretation of Rubidium-Based Perovskite Recipes toward Electronic Passivation and Ion-Diffusion Mitigation. <i>Advanced Materials</i> , 2022, 34, e2109998.	21.0	29
74	Ferroelectric polarization-enhanced charge separation in a vanadium-doped ZnO photoelectrochemical system. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 1533-1539.	6.0	27
75	Grain Boundary Perfection Enabled by Pyridinic Nitrogen Doped Graphdiyne in Hybrid Perovskite. <i>Advanced Functional Materials</i> , 2021, 31, 2104633.	14.9	27
76	Interface Engineering in 1D ZnO-Based Heterostructures for Photoelectrical Devices. <i>Advanced Functional Materials</i> , 2022, 32, 2106887.	14.9	27
77	Molecule-Upgraded van der Waals Contacts for Schottky-Barrier-Free Electronics. <i>Advanced Materials</i> , 2021, 33, e2104935.	21.0	26
78	Record-high saturation current in end-bond contacted monolayer MoS ₂ transistors. <i>Nano Research</i> , 2022, 15, 475-481.	10.4	24
79	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
80	A van der Waals Ferroelectric Tunnel Junction for Ultrahigh-Temperature Operation Memory. <i>Small Methods</i> , 2022, 6, e2101583.	8.6	22
81	Endogenous Synergistic Enhanced Self-Powered Photodetector via Multi-Effect Coupling Strategy toward High-Efficiency Ultraviolet Communication. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	20
82	Graphdiyne: Bridging SnO ₂ and Perovskite in Planar Solar Cells. <i>Angewandte Chemie</i> , 2020, 132, 11670-11679.	2.0	17
83	Omnibearing Interpretation of External Ions Passivated Ion Migration in Mixed Halide Perovskites. <i>Nano Letters</i> , 2022, 22, 1467-1474.	9.1	17
84	Synergistic-Engineered van der Waals photodiodes with high efficiency. <i>Informa-Materially</i> , 2022, 4, .	17.3	16
85	Ultra-stable ZnO nanobelts in electrochemical environments. <i>Materials Chemistry Frontiers</i> , 2021, 5, 430-437.	5.9	15
86	Broadband electromagnetic wave absorption properties and mechanism of MoS ₂ /rGO nanocomposites. <i>Materials Chemistry Frontiers</i> , 2021, 5, 5063-5070.	5.9	13
87	Edge induced band bending in van der Waals heterojunctions: A first principle study. <i>Nano Research</i> , 2020, 13, 701-708.	10.4	12
88	A Universal Strategy for Improving the Energy Transmission Efficiency and Load Power of Triboelectric Nanogenerators. <i>Advanced Energy Materials</i> , 2019, 9, 1901881.	19.5	11
89	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
90	Fully Organic Self-Powered Electronic Skin with Multifunctional and Highly Robust Sensing Capability. <i>Research</i> , 2021, 2021, 9801832.	5.7	9

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91	Ultrathin strain-gated field effect transistor based on In-doped ZnO nanobelts. <i>APL Materials</i> , 2017, 5, .	5.1	7
92	Information accessibility oriented self-powered and ripple-inspired fingertip interactors with auditory feedback. <i>Nano Energy</i> , 2021, 87, 106117.	16.0	7
93	AFM investigation of nanomechanical properties of ZnO nanowires. <i>RSC Advances</i> , 2015, 5, 33445-33449.	3.6	6
94	Triboelectricity-assisted transfer of graphene for flexible optoelectronic applications. <i>Nano Research</i> , 2016, 9, 899-907.	10.4	6
95	Photovoltaics: Deciphering the NH_4PbI_3 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
96	Enhanced field emission properties of graphene-based cathodes fabricated by ultrasonic atomization spray. <i>RSC Advances</i> , 2018, 8, 16207-16213.	3.6	6
97	Point defect induced intervalley scattering for the enhancement of interlayer electron transport in bilayer MoS_2 homojunctions. <i>Nanoscale</i> , 2020, 12, 9859-9865.	5.6	4
98	Interface Engineering for High-Performance Photoelectrochemical Cells via Atomic Layer Deposition Technique. <i>Energy Technology</i> , 2021, 9, 2000819.	3.8	4
99	Van Der Waals Heterostructures: Interfacial Charge Behavior Modulation in Perovskite Quantum Dot-Monolayer MoS_2 0D-2D Mixed-Dimensional van der Waals Heterostructures (<i>Adv. Funct. Mater.</i>) <i>TJ ETQq1 1 0.784314 r9BT /Ove</i>	11.2	4
100	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
101	STRUCTURE AND MAGNETIC PROPERTY OF NI-DOPED ZNO NANORODS. , 2012, , .		0
102	Optoelectronics: All-Inorganic Perovskite Quantum Dot-Monolayer MoS_2 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
103	Perovskite Crystallization: A Site Management for Highly Crystalline Perovskites (<i>Adv. Mater.</i> 4/2020). <i>Advanced Materials</i> , 2020, 32, 2070031.	21.0	0
104	Interface Engineering for High-Performance Photoelectrochemical Cells via Atomic Layer Deposition Technique. <i>Energy Technology</i> , 2021, 9, 2170023.	3.8	0