

Qi Zhang

List of Publications by Year in descending order

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4,798
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147566

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6757
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrathin SnSe ₂ Flakes Grown by Chemical Vapor Deposition for High-Performance Photodetectors. <i>Advanced Materials</i> , 2015, 27, 8035-8041.	11.1	460
2	Tunneling Diode Based on WSe ₂ /SnS ₂ Heterostructure Incorporating High Detectivity and Responsivity. <i>Advanced Materials</i> , 2018, 30, 1703286.	11.1	293
3	Vapour-liquid-solid growth of monolayer MoS ₂ nanoribbons. <i>Nature Materials</i> , 2018, 17, 535-542.	13.3	286
4	Large-Scale Growth of Ultrathin SnS ₂ Nanosheets and High Performance for Phototransistors. <i>Advanced Functional Materials</i> , 2016, 26, 4405-4413.	7.8	279
5	2D Layered Material-Based van der Waals Heterostructures for Optoelectronics. <i>Advanced Functional Materials</i> , 2018, 28, 1706587.	7.8	279
6	Terahertz and Infrared Spectroscopy of Gated Large-Area Graphene. <i>Nano Letters</i> , 2012, 12, 3711-3715.	4.5	235
7	One-Dimensional CdS Nanostructures: A Promising Candidate for Optoelectronics. <i>Advanced Materials</i> , 2013, 25, 3017-3037.	11.1	212
8	Self-powered photovoltaic photodetector established on lateral monolayer MoS ₂ -WS ₂ heterostructures. <i>Nano Energy</i> , 2018, 51, 45-53.	8.2	209
9	Vertical heterostructures based on SnSe ₂ /MoS ₂ for high performance photodetectors. <i>2D Materials</i> , 2017, 4, 025048.	2.0	183
10	Booming Development of Group IV-VI Semiconductors: Fresh Blood of 2D Family. <i>Advanced Science</i> , 2016, 3, 1600177.	5.6	181
11	High-Performance Solar-Blind Deep Ultraviolet Photodetector Based on Individual Single-Crystalline Zn ₂ GeO ₄ Nanowire. <i>Advanced Functional Materials</i> , 2016, 26, 704-712.	7.8	163
12	The role of microstructure in piezocatalytic degradation of organic dye pollutants in wastewater. <i>Nano Energy</i> , 2019, 59, 372-379.	8.2	154
13	ZnSe nanostructures: Synthesis, properties and applications. <i>Progress in Materials Science</i> , 2016, 83, 472-535.	16.0	128
14	2D Ternary Chalcogenides. <i>Advanced Optical Materials</i> , 2018, 6, 1800058.	3.6	114
15	High performance near-infrared photodetectors based on ultrathin SnS nanobelts grown via physical vapor deposition. <i>Journal of Materials Chemistry C</i> , 2016, 4, 2111-2116.	2.7	113
16	Ternary Ta ₂ NiSe ₅ Flakes for a High-Performance Infrared Photodetector. <i>Advanced Functional Materials</i> , 2016, 26, 8281-8289.	7.8	112
17	Growth of Nb-Doped Monolayer WS ₂ by Liquid-Phase Precursor Mixing. <i>ACS Nano</i> , 2019, 13, 10768-10775.	7.3	102
18	Performance-Enhancing Broadband and Flexible Photodetectors Based on Perovskite/ZnO Nanowire Hybrid Structures. <i>Advanced Optical Materials</i> , 2017, 5, 1700206.	3.6	96

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19	Ultrathin 2D GeSe ₂ Rhombic Flakes with High Anisotropy Realized by Van der Waals Epitaxy. <i>Advanced Functional Materials</i> , 2017, 27, 1703858.	7.8	95
20	Liquid Alloy-Assisted Growth of 2D Ternary Ga ₂ In ₄ S ₉ toward High-Performance UV Photodetection. <i>Advanced Materials</i> , 2019, 31, e1806306.	11.1	90
21	Self-Limited Epitaxial Growth of Ultrathin Nonlayered CdS Flakes for High-Performance Photodetectors. <i>Advanced Functional Materials</i> , 2018, 28, 1800181.	7.8	86
22	Scalable production of self-supported WS ₂ /CNFs by electrospinning as the anode for high-performance lithium-ion batteries. <i>Science Bulletin</i> , 2016, 61, 227-235.	4.3	74
23	Topological Crystalline Insulator SnTe/Si Vertical Heterostructure Photodetectors for High-Performance Near-Infrared Detection. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14067-14077.	4.0	61
24	Strain Driven Spectral Broadening of Pb Ion Exchanged CdS Nanowires. <i>Small</i> , 2016, 12, 874-881.	5.2	55
25	Simple fabrication of a ZnO nanorod array UV detector with a high performance. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2014, 61, 180-184.	1.3	45
26	Polymer electrets and their applications. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50406.	1.3	43
27	High-Energy Gain Upconversion in Monolayer Tungsten Disulfide Photodetectors. <i>Nano Letters</i> , 2019, 19, 5595-5603.	4.5	41
28	One-step synthesis of p-type GaSe nanoribbons and their excellent performance in photodetectors and phototransistors. <i>Journal of Materials Chemistry C</i> , 2016, 4, 7817-7823.	2.7	39
29	Facile synthesis of highly uniform Mn/Co-codoped ZnO nanowires: Optical, electrical, and magnetic properties. <i>Nanoscale</i> , 2011, 3, 654-660.	2.8	37
30	Electrical breakdown of ZnO nanowires in metal-semiconductor-metal structure. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	34
31	Self-catalytic Synthesis, Structures, and Properties of High-Quality Tetrapod-Shaped ZnO Nanostructures. <i>Crystal Growth and Design</i> , 2009, 9, 1863-1868.	1.4	31
32	In situ fabrication and investigation of nanostructures and nanodevices with a microscope. <i>Chemical Society Reviews</i> , 2016, 45, 2694-2713.	18.7	30
33	Saturated blue-violet electroluminescence from single ZnO micro/nanowire and p-GaN film hybrid light-emitting diodes. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	29
34	Bias-tunable dual-mode ultraviolet photodetectors for photoelectric tachometer. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	29
35	High-performance ultra-violet phototransistors based on CVT-grown high quality SnS ₂ flakes. <i>Nanoscale Advances</i> , 2019, 1, 3973-3979.	2.2	29
36	Band Structure Engineering in MoS ₂ Based Heterostructures toward High-Performance Phototransistors. <i>Advanced Optical Materials</i> , 2020, 8, 2000430.	3.6	28

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37	Epitaxial Growth of Lead-Free 2D Cs ₃ Cu ₂ I ₅ Perovskites for High-Performance UV Photodetectors. <i>Small</i> , 2022, 18, .	5.2	28
38	2D semiconductors towards high-performance ultraviolet photodetection. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 303002.	1.3	22
39	A novel logic switch based on individual ZnO nanotetrapods. <i>Nanoscale</i> , 2011, 3, 2166.	2.8	21
40	Electrically pumped lasing from single ZnO micro/nanowire and poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) hybrid heterostructures. <i>Applied Physics Letters</i> , 2012, 101, 043119.	1.5	21
41	Geometry dependent photoconductivity of In ₂ S ₃ kinks synthesized by kinetically controlled thermal deposition. <i>Nano Research</i> , 2016, 9, 3848-3857.	5.8	20
42	Controllable Carrier Type in Boron Phosphide Nanowires Toward Homostructural Optoelectronic Devices. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 10296-10303.	4.0	20
43	Photoluminescence and highly selective photoresponse of ZnO nanorod arrays. <i>Optical Materials</i> , 2013, 35, 1532-1537.	1.7	17
44	Controlled Doping Engineering in 2D MoS ₂ Crystals toward Performance Augmentation of Optoelectronic Devices. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 31861-31869.	4.0	16
45	Preparation of multifunctional PLZT nanowires and their applications in piezocatalysis and transparent flexible films. <i>Journal of Alloys and Compounds</i> , 2019, 811, 152063.	2.8	15
46	Temperature-dependent electron transport in ZnO micro/nanowires. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	13
47	Stoichiometric Effect on Optoelectronic Properties of Composition-Tunable CdS _{1-x} Se _x Nanowires. <i>Advanced Optical Materials</i> , 2017, 5, 1600877.	3.6	13
48	Novel and dual-mode strain-detecting performance based on a layered NiO/ZnO p-n junction for flexible electronics. <i>Journal of Materials Chemistry C</i> , 2020, 8, 1466-1474.	2.7	12
49	Diameter-dependent internal gain in ZnO micro/nanowires under electron beam irradiation. <i>Nanoscale</i> , 2011, 3, 3060.	2.8	10
50	High-performance epidermal strain sensor based on macro-defect graphene foams. <i>Sensors and Actuators A: Physical</i> , 2020, 303, 111721.	2.0	10
51	Polar-surface-driven growth of ZnS microsprings with novel optoelectronic properties. <i>NPG Asia Materials</i> , 2015, 7, e213-e213.	3.8	9
52	Performance-enhancing ultraviolet photodetectors established on individual In ₂ O ₃ nanowires via coating a CuO layer. <i>Materials Research Express</i> , 2017, 4, 045018.	0.8	9
53	In situ physical examination of Bi ₂ S ₃ nanowires with a microscope. <i>Journal of Alloys and Compounds</i> , 2019, 798, 628-634.	2.8	9
54	Negative differential resistance in ZnO nanowires induced by surface state modulation. <i>Materials Chemistry and Physics</i> , 2011, 131, 258-261.	2.0	8

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55	Utilization of electron beam to modulate electron injection over Schottky barrier. <i>Current Applied Physics</i> , 2011, 11, 586-589.	1.1	8
56	Investigation of electron beam detection properties of ZnO nanowire based back-to-back double Schottky diode. <i>RSC Advances</i> , 2014, 4, 12743.	1.7	8
57	Self-powered photodetectors based on stacked WSe ₂ /graphene/SnS ₂ p-g-n heterostructures. <i>Journal of Alloys and Compounds</i> , 2022, 920, 165974.	2.8	7
58	Wide Linear Range Strain Sensor Enabled by the Non-Newtonian Fluid for Bio-Signals Monitoring. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	6
59	Influence of electromechanical coupling and electron irradiation on the conductivity of individual ZnO nanowire. <i>Solid State Sciences</i> , 2011, 13, 658-661.	1.5	5
60	Tuning electronic transport of ZnO micro/nanowires by a transverse electric field. <i>Applied Physics Letters</i> , 2011, 99, 063105.	1.5	5
61	Combined Field and Thermionic Emission Process in ZnO Nanostructure Cold Emission Cathode. <i>Materials Science Forum</i> , 2010, 654-656, 1138-1141.	0.3	3
62	Multi-zone light emission in a one-dimensional ZnO waveguide with hybrid structures. <i>Optical Materials Express</i> , 2011, 1, 173.	1.6	3
63	Electron irradiation effect on the Schottky gate of ZnO nanowires-based field effect transistors. <i>Micro and Nano Letters</i> , 2011, 6, 437.	0.6	3
64	Strain loading dependent optoelectronic characteristics in CdS micro/nanowires. <i>Journal of Alloys and Compounds</i> , 2021, 857, 157489.	2.8	2
65	Fabrication and Optical Properties of Mn Doped ZnS Nanowires. <i>Advanced Materials Research</i> , 0, 236-238, 2211-2215.	0.3	0
66	Veritable electronic characteristics in ZnO nanowire circuits uncovered by the four-terminal method at a low temperature. <i>AIP Advances</i> , 2017, 7, 045015.	0.6	0