

Z Q Zheng

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76
papers

2,706
citations

29
h-index

51
g-index

84
ext. papers

3,307
ext. citations

8.1
avg, IF

5.84
L-index

| # | Paper | IF | Citations |
|----|--|------|-----------|
| 76 | Stable, highly-responsive and broadband photodetection based on large-area multilayered WS ₂ films grown by pulsed-laser deposition. <i>Nanoscale</i> , 2015 , 7, 14974-81 | 7.7 | 217 |
| 75 | Flexible, transparent and ultra-broadband photodetector based on large-area WSe ₂ film for wearable devices. <i>Nanotechnology</i> , 2016 , 27, 225501 | 3.4 | 187 |
| 74 | All-Layered 2D Optoelectronics: A High-Performance UV-vis-NIR Broadband SnSe Photodetector with Bi ₂ Te ₃ Topological Insulator Electrodes. <i>Advanced Functional Materials</i> , 2017 , 27, 1701823 | 15.6 | 180 |
| 73 | Light-controlling, flexible and transparent ethanol gas sensor based on ZnO nanoparticles for wearable devices. <i>Scientific Reports</i> , 2015 , 5, 11070 | 4.9 | 142 |
| 72 | Electronic Reconstruction of Ag ₂ WO ₄ Nanorods for Visible-Light Photocatalysis. <i>ACS Nano</i> , 2015 , 9, 7256-65 | 16.7 | 120 |
| 71 | Layered-material WS ₂ /topological insulator Bi ₂ Te ₃ heterostructure photodetector with ultrahigh responsivity in the range from 370 to 1550 nm. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 7831-7840 | 7.1 | 107 |
| 70 | Promoting the Performance of Layered-Material Photodetectors by Alloy Engineering. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 12915-24 | 9.5 | 103 |
| 69 | Production of large-area 2D materials for high-performance photodetectors by pulsed-laser deposition. <i>Progress in Materials Science</i> , 2019 , 106, 100573 | 42.2 | 94 |
| 68 | Promoting Photosensitivity and Detectivity of the Bi/Si Heterojunction Photodetector by Inserting a WS ₂ Layer. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 26701-8 | 9.5 | 78 |
| 67 | Growth of centimeter-scale high-quality In ₂ Se ₃ films for transparent, flexible and high performance photodetectors. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 8094-8103 | 7.1 | 72 |
| 66 | Self-Assembly High-Performance UV-vis-NIR Broadband InSe/Si Photodetector Array for Weak Signal Detection. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 43830-43837 | 9.5 | 71 |
| 65 | Layered tin monoselenide as advanced photothermal conversion materials for efficient solar energy-driven water evaporation. <i>Nanoscale</i> , 2018 , 10, 2876-2886 | 7.7 | 70 |
| 64 | Self-assembled and Pd decorated Zn ₂ SnO ₄ /ZnO wire-sheet shape nano-heterostructures networks hydrogen gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2014 , 195, 549-561 | 8.5 | 62 |
| 63 | Stable, Fast UV-Vis-NIR Photodetector with Excellent Responsivity, Detectivity, and Sensitivity Based on In ₂ Te ₃ Films with a Direct Bandgap. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 20872-9 | 9.5 | 58 |
| 62 | Centimeter-Scale Deposition of MoWSe Alloy Film for High-Performance Photodetectors on Versatile Substrates. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 14920-14928 | 9.5 | 57 |
| 61 | A Floating Sheet for Efficient Photocatalytic Water Splitting. <i>Advanced Energy Materials</i> , 2016 , 6, 1600510 | 11.8 | 54 |
| 60 | Broadband photodetectors based on 2D group IVA metal chalcogenides semiconductors. <i>Applied Materials Today</i> , 2019 , 15, 115-138 | 6.6 | 50 |

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| 59 | Alloying-assisted phonon engineering of layered BiInSe@nickel foam for efficient solar-enabled water evaporation. <i>Nanoscale</i> , 2017 , 9, 16396-16403 | 7.7 | 49 |
| 58 | Tin dioxide quantum dots coupled with graphene for high-performance bulk-silicon Schottky photodetector. <i>Materials Horizons</i> , 2018 , 5, 727-737 | 14.4 | 46 |
| 57 | Low-temperature and highly sensitive C ₂ H ₂ sensor based on Au decorated ZnO/In ₂ O ₃ belt-tooth shape nano-heterostructures. <i>Sensors and Actuators B: Chemical</i> , 2017 , 244, 344-356 | 8.5 | 44 |
| 56 | 2D In ₂ S ₃ Nanoflake Coupled with Graphene toward High-Sensitivity and Fast-Response Bulk-Silicon Schottky Photodetector. <i>Small</i> , 2019 , 15, e1904912 | 11 | 44 |
| 55 | A red phosphor Mg ₃ Y ₂ Ge ₃ O ₁₂ : Bi ³⁺ , Eu ³⁺ with high brightness and excellent thermal stability of luminescence for white light-emitting diodes. <i>Journal of Luminescence</i> , 2019 , 210, 202-209 | 3.8 | 44 |
| 54 | Synergistic Effect of Hybrid Multilayer In ₂ Se ₃ and Nanodiamonds for Highly Sensitive Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 20200-11 | 9.5 | 41 |
| 53 | Self-Assembly of the Lateral InSe/CuInSe Heterojunction for Enhanced Photodetection. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7288-7296 | 9.5 | 39 |
| 52 | Light-controlled C ₂ H ₂ gas sensing based on Au@ZnO nanowires with plasmon-enhanced sensitivity at room temperature. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 7067-7074 | 7.1 | 38 |
| 51 | Self-Powered SnS ₂ Alloy/Silicon Heterojunction Photodetectors with High Sensitivity in a Wide Spectral Range. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 40222-40231 | 9.5 | 37 |
| 50 | Strain engineering coupled with optical regulation towards a high-sensitivity In ₂ S ₃ photodetector. <i>Materials Horizons</i> , 2020 , 7, 1427-1435 | 14.4 | 32 |
| 49 | In ₂ O ₃ Nanotower Hydrogen Gas Sensors Based on Both Schottky Junction and Thermoelectronic Emission. <i>Nanoscale Research Letters</i> , 2015 , 10, 1002 | 5 | 31 |
| 48 | Non-layered 2D materials toward advanced photoelectric devices: progress and prospects. <i>Materials Horizons</i> , 2020 , 7, 2185-2207 | 14.4 | 30 |
| 47 | UV-Vis-NIR photodetector based on monolayer MoS ₂ . <i>Materials Letters</i> , 2019 , 237, 298-302 | 3.3 | 28 |
| 46 | Graphene/In ₂ S ₃ van der Waals Heterostructure for Ultrasensitive Photodetection. <i>ACS Photonics</i> , 2018 , 5, 4912-4919 | 6.3 | 28 |
| 45 | Ultrasensitive 2D/3D Heterojunction Multicolor Photodetectors: A Synergy of Laterally and Vertically Aligned 2D Layered Materials. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 38166-38172 | 9.5 | 26 |
| 44 | Thickness-Dependent Optical Properties and In-Plane Anisotropic Raman Response of the 2D In ₂ S ₃ . <i>Advanced Optical Materials</i> , 2019 , 7, 1901085 | 8.1 | 25 |
| 43 | 2D WS ₂ Based Asymmetric Schottky Photodetector with High Performance. <i>Advanced Electronic Materials</i> , 2021 , 7, 2000964 | 6.4 | 24 |
| 42 | Out of plane stacking of InSe-based heterostructures towards high performance electronic and optoelectronic devices using a graphene electrode. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 12509-12517 | 7.1 | 24 |

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| 41 | Unique and Tunable Photodetecting Performance for Two-Dimensional Layered MoSe/WSe p-n Junction on the 4H-SiC Substrate. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 19277-19285 | 9.5 | 23 |
| 40 | An asymmetric contact-induced self-powered 2D InS photodetector towards high-sensitivity and fast-response. <i>Nanoscale</i> , 2020 , 12, 7196-7205 | 7.7 | 23 |
| 39 | Fabrication of a high performance ZnIn2S4/Si heterostructure photodetector array for weak signal detection. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 12928-12939 | 7.1 | 20 |
| 38 | Epitaxial growth of large-scale In2S3 nanoflakes and the construction of a high performance In2S3/Si photodetector. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 12104-12113 | 7.1 | 19 |
| 37 | An Innovative Postdeposition Annealing Approach Producing Centimeter-Scale In2O3/In2(TeO3)3 Bulk Heterojunction Thin Film for Room-Temperature Persistent Photoconductivity. <i>Advanced Optical Materials</i> , 2017 , 5, 1600908 | 8.1 | 17 |
| 36 | Novel two-dimensional monoelemental and ternary materials: growth, physics and application. <i>Nanophotonics</i> , 2020 , 9, 2147-2168 | 6.3 | 17 |
| 35 | A flexible, transparent and high-performance gas sensor based on layer-materials for wearable technology. <i>Nanotechnology</i> , 2017 , 28, 415501 | 3.4 | 17 |
| 34 | All-Dielectric Nanostructure Fabry-Pérot-Enhanced Mie Resonances Coupled with Photogain Modulation toward Ultrasensitive In2S3 Photodetector. <i>Advanced Functional Materials</i> , 2021 , 31, 2007987 | 15.6 | 17 |
| 33 | High performance tin diselenide photodetectors dependent on thickness: a vertical graphene sandwiched device and interfacial mechanism. <i>Nanoscale</i> , 2019 , 11, 13309-13317 | 7.7 | 15 |
| 32 | Plasmon resonances in semiconductor materials for detecting photocatalysis at the single-particle level. <i>Nanoscale</i> , 2016 , 8, 15001-7 | 7.7 | 15 |
| 31 | Controllable growth of large-area atomically thin ReS2 films and their thickness-dependent optoelectronic properties. <i>Applied Physics Letters</i> , 2019 , 114, 153102 | 3.4 | 14 |
| 30 | Tunable Polarity Behavior and High-Performance Photosensitive Characteristics in Schottky-Barrier Field-Effect Transistors Based on Multilayer WS. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 2745-2751 | 9.5 | 13 |
| 29 | Field emission properties and growth mechanism of In2O3 nanostructures. <i>Nanoscale Research Letters</i> , 2014 , 9, 111 | 5 | 12 |
| 28 | Recent progress in high-performance photo-detectors enabled by the pulsed laser deposition technology. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 4988-5014 | 7.1 | 11 |
| 27 | Self-assembly In2Se3/SnSe2 heterostructure array with suppressed dark current and enhanced photosensitivity for weak signal. <i>Science China Materials</i> , 2020 , 63, 1560-1569 | 7.1 | 11 |
| 26 | Field emission and growth mechanism of ZnO microrods array with nanospikes fabricated by thermal evaporation. <i>Materials Letters</i> , 2016 , 170, 210-212 | 3.3 | 9 |
| 25 | 3D resonator based on luminescence enhanced by both polarized, size-dependent whispering gallery modes and Fabry-Pérot waveguide modes in individual ZnO micro- and nanonails. <i>Nanoscale</i> , 2014 , 6, 5338-42 | 7.7 | 9 |
| 24 | Vertically stacked BiSe/MoTe heterostructure with large band offsets for nanoelectronics. <i>Nanoscale</i> , 2021 , 13, 15403-15414 | 7.7 | 9 |

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| 23 | Universal Strategy Integrating Strain and Interface Engineering to Drive High-Performance 2D Material Photodetectors. <i>Advanced Optical Materials</i> , 2021 , 9, 2100450 | 8.1 | 8 |
| 22 | Field emission and photoluminescence of ZnO nanocombs. <i>Applied Physics A: Materials Science and Processing</i> , 2013 , 113, 549-556 | 2.6 | 7 |
| 21 | Whispering gallery and Fabry-Pérot modes enhanced luminescence from individual ZnO micro mushroom. <i>Journal of Applied Physics</i> , 2013 , 113, 034313 | 2.5 | 6 |
| 20 | A reasonably designed 2D WS and CdS microwire heterojunction for high performance photoresponse. <i>Nanoscale</i> , 2021 , 13, 5660-5669 | 7.7 | 6 |
| 19 | Promoting the Performance of 2D Material Photodetectors by Dielectric Engineering.. <i>Small Methods</i> , 2021 , e2101046 | 12.8 | 6 |
| 18 | Polarity-Switchable and Self-Driven Photo-Response Based on Vertically Stacked Type-III GeSe/SnS 2 Heterojunction. <i>Advanced Materials Interfaces</i> , 2102099 | 4.6 | 5 |
| 17 | Enhancement of exciton emission in WS based on the Kerker effect from the mode engineering of individual Si nanostripes. <i>Nanoscale Horizons</i> , 2020 , 5, 1368-1377 | 10.8 | 4 |
| 16 | Pulsed-Laser-Deposition Fabricated ZnIn 2 S 4 Photodetectors with Excellent ON/OFF Switching Characteristics toward High-Temperature-Resistant Photodetection Applications. <i>Advanced Optical Materials</i> , 2102335 | 8.1 | 4 |
| 15 | Hybrid 1D/2D heterostructure with electronic structure engineering toward high-sensitivity and polarization-dependent photodetector. <i>Science China Materials</i> , 2022 , 65, 732-740 | 7.1 | 4 |
| 14 | Deep insights into interface engineering by buffer layer for efficient perovskite solar cells: a first-principles study. <i>Science China Materials</i> , 2020 , 63, 1588-1596 | 7.1 | 3 |
| 13 | Circular SnS _{0.5} Se _{0.5} Nanosheets with Highly Anisotropic Performance for Nanoelectronics. <i>ACS Applied Nano Materials</i> , 2020 , 3, 10270-10283 | 5.6 | 3 |
| 12 | Large-area ReS ₂ monolayer films on flexible substrate for SERS based molecular sensing with strong fluorescence quenching. <i>Applied Surface Science</i> , 2021 , 542, 148757 | 6.7 | 3 |
| 11 | Non-Layered Te/In S Tunneling Heterojunctions with Ultrahigh Photoresponsivity and Fast Photoresponse.. <i>Small</i> , 2022 , e2200445 | 11 | 3 |
| 10 | Nonlayered In ₂ S ₃ /Al ₂ O ₃ /CsPbBr ₃ Quantum Dot Heterojunctions for Sensitive and Stable Photodetectors. <i>ACS Applied Nano Materials</i> , 2021 , 4, 5106-5114 | 5.6 | 2 |
| 9 | High-quality two-dimensional tellurium flakes grown by high-temperature vapor deposition. <i>Journal of Materials Chemistry C</i> , | 7.1 | 2 |
| 8 | Self-driven SnSSe alloy/GaAs heterostructure based unique polarization sensitive photodetectors. <i>Nanoscale</i> , 2021 , 13, 15193-15204 | 7.7 | 2 |
| 7 | Optical Resonance Coupled with Electronic Structure Engineering toward High-Sensitivity Photodetectors. <i>Advanced Optical Materials</i> , 2021 , 9, 2101374 | 8.1 | 2 |
| 6 | An artificial optoelectronic nociceptor based on In ₂ S ₃ memristor. <i>Journal Physics D: Applied Physics</i> , 2022 , 55, 125401 | 3 | 2 |

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| 5 | Fabrication and Hydrogen Sensing Property of In ₂ O ₃ Nanotowers. <i>Advanced Materials Research</i> , 2013 , 834-836, 913-916 | 0.5 | 1 |
| 4 | High performance DUV-visible 4H-SiC-based multilayered SnS ₂ dual-mode photodetectors. <i>Journal of Materials Chemistry C</i> , | 7.1 | 1 |
| 3 | A New Wide Bandgap Semiconductor: Carbyne Nanocrystals. <i>Advanced Functional Materials</i> , 2021 , 31, 2104254 | 15.6 | 1 |
| 2 | Etching-free high-throughput intersectional nanofabrication of diverse optical nanoantennas for nanoscale light manipulation.. <i>Journal of Colloid and Interface Science</i> , 2022 , 622, 950-959 | 9.3 | 1 |
| 1 | Self-Assembled Alcohol Sensor of In ₂ O ₃ Nanorods. <i>Advanced Materials Research</i> , 2013 , 834-836, 46-49 | 0.5 | |