

Yongzhe Zhang

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

2,250
citations

257450

24
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254184

43
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92
all docs

92
docs citations

92
times ranked

3433
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | p-/n-Type modulation of 2D transition metal dichalcogenides for electronic and optoelectronic devices. <i>Nano Research</i> , 2022, 15, 123-144. | 10.4 | 20 |
| 2 | Light-Errewritable Logic Devices Based on Van der Waals Heterostructures. <i>Advanced Electronic Materials</i> , 2022, 8, 2100708. | 5.1 | 5 |
| 3 | Binary-ternary transition metal chalcogenides interlayer coupling in van der Waals type-II heterostructure for visible-infrared photodetector with efficient suppression dark currents. <i>Nano Research</i> , 2022, 15, 2689-2696. | 10.4 | 16 |
| 4 | Growth of centimeter scale Nb _{1-x} W _x Se ₂ monolayer film by promoter assisted liquid phase chemical vapor deposition. <i>Nano Research</i> , 2022, 15, 2608-2615. | 10.4 | 9 |
| 5 | A High-Performance In-Memory Photodetector Realized by Charge Storage in a van der Waals MISFET. <i>Advanced Materials</i> , 2022, 34, e2107734. | 21.0 | 15 |
| 6 | The Chinese medicine Fufang Zhenzhu Tiaozhi capsule protects against renal injury and inflammation in mice with diabetic kidney disease. <i>Journal of Ethnopharmacology</i> , 2022, 292, 115165. | 4.1 | 13 |
| 7 | Toward Efficiency Limits of Crystalline Silicon Solar Cells: Recent Progress in High-Efficiency Silicon Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, . | 19.5 | 41 |
| 8 | Limiting Factors of Detectivity in Near-Infrared Colloidal Quantum Dot Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 25812-25823. | 8.0 | 11 |
| 9 | Dual Optimization of Bulk and Surface via Guanidine Halide for Efficient and Stable 2D/3D Hybrid Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, . | 19.5 | 30 |
| 10 | Switchable Unipolar-Barrier Van der Waals Heterostructures with Natural Anisotropy for Full Linear Polarimetry Detection. <i>Advanced Materials</i> , 2022, 34, . | 21.0 | 17 |
| 11 | Toward Efficiency Limits of Crystalline Silicon Solar Cells: Recent Progress in High-Efficiency Silicon Heterojunction Solar Cells (Adv. Energy Mater. 23/2022). <i>Advanced Energy Materials</i> , 2022, 12, . | 19.5 | 5 |
| 12 | Dual tunable terahertz polarization conversion enabled by Double-Layer Graphene Metasurface. <i>Optics Communications</i> , 2022, 521, 128575. | 2.1 | 0 |
| 13 | The fault detection of transmitting current encoded by m-sequence using triple-correlation function in helicopter-borne electromagnetic method. <i>Review of Scientific Instruments</i> , 2022, 93, 074501. | 1.3 | 1 |
| 14 | Effect of temperature on the performance of perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 12784-12792. | 2.2 | 44 |
| 15 | Infrared colloidal quantum dots for photoelectric conversion devices. <i>Journal of Materials Chemistry C</i> , 2021, 9, 2994-3025. | 5.5 | 9 |
| 16 | Rapid degradation behavior of encapsulated perovskite solar cells under light, bias voltage or heat fields. <i>Nanoscale Advances</i> , 2021, 3, 6128-6137. | 4.6 | 15 |
| 17 | All-Inorganic Perovskite Nanosheet Fabrication under Synergistic Effect for Integrated Optoelectronics with Strong Light-Matter Interactions. <i>ACS Applied Nano Materials</i> , 2021, 4, 2634-2641. | 5.0 | 3 |
| 18 | Identification of embedded nanotwins at c-Si/a-Si:H interface limiting the performance of high-efficiency silicon heterojunction solar cells. <i>Nature Energy</i> , 2021, 6, 194-202. | 39.5 | 52 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Influence of Fluorinated Components on Perovskite Solar Cells Performance and Stability. <i>Small</i> , 2021, 17, e2004081. | 10.0 | 29 |
| 20 | Spectral Discrimination Sensors Based on Nanomaterials and Nanostructures: A Review. <i>IEEE Sensors Journal</i> , 2021, 21, 4044-4060. | 4.7 | 8 |
| 21 | Controllable Liquid Exfoliation of Fibrous Phosphorus and Its Live-Cell Imaging. <i>Inorganic Chemistry</i> , 2021, 60, 4883-4890. | 4.0 | 5 |
| 22 | Minimizing Open-Circuit Voltage Loss in Perovskite/Si Tandem Solar Cells via Exploring the Synergic Effect of Cations and Anions. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2100119. | 2.4 | 7 |
| 23 | Enhanced Photodetection Performance in Graphene-Assisted Tunneling Photodetector. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 1702-1709. | 3.0 | 13 |
| 24 | Direct fabrication of electrochromic Ni-MOF 74 film on ITO with high-stable performance. <i>Ionics</i> , 2021, 27, 3655-3662. | 2.4 | 10 |
| 25 | Deacetylated Sp1 improves β -glycerophosphate-induced calcification in vascular smooth muscle cells. <i>Experimental and Therapeutic Medicine</i> , 2021, 22, 1152. | 1.8 | 4 |
| 26 | Performance of heterojunction solar cells with different intrinsic a-Si:H thin layers deposited by RF- and VHF-PECVD. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 25327-25331. | 2.2 | 4 |
| 27 | High performance sub-bandgap photodetection via internal photoemission based on ideal metal/2D-material van der Waals Schottky interface. <i>Nanoscale</i> , 2021, 13, 16448-16456. | 5.6 | 14 |
| 28 | Carrier mobility tuning of MoS ₂ by strain engineering in CVD growth process. <i>Nano Research</i> , 2021, 14, 2314. | 10.4 | 27 |
| 29 | Design and Performance Study of Hybrid Graphene/HgCdTe Mid-Infrared Photodetector. <i>IEEE Sensors Journal</i> , 2021, 21, 26708-26715. | 4.7 | 8 |
| 30 | Improved efficiency and stability of flexible perovskite solar cells by a new spacer cation additive. <i>RSC Advances</i> , 2021, 11, 33637-33645. | 3.6 | 6 |
| 31 | Application of Indium Tin Oxide/Aluminum-Doped Zinc Oxide Transparent Conductive Oxide Stack Films in Silicon Heterojunction Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 13586-13592. | 5.1 | 17 |
| 32 | Liquid Exfoliation and Optoelectronic Devices of Fibrous Phosphorus. <i>Inorganic Chemistry</i> , 2020, 59, 976-979. | 4.0 | 11 |
| 33 | Engineering grain boundaries at the 2D limit for the hydrogen evolution reaction. <i>Nature Communications</i> , 2020, 11, 57. | 12.8 | 153 |
| 34 | Flexible perovskite solar cells fabricated by a gradient heat treatment process. <i>Sustainable Energy and Fuels</i> , 2020, 4, 824-831. | 4.9 | 8 |
| 35 | Integrated Molar Chiral Sensing Based on High-Q Metasurface. <i>Nano Letters</i> , 2020, 20, 8696-8703. | 9.1 | 89 |
| 36 | Transition metal dichalcogenides thyristor realized by solid ionic conductor gate induced doping. <i>Applied Physics Letters</i> , 2020, 117, 053102. | 3.3 | 2 |

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|----|---|------|-----------|
| 37 | A Simulation of the Impact of Curb Parking Behavior on Traffic Based on a Cellular Automata Model. , 2020, , . | | 0 |
| 38 | Achieving high efficiency silicon heterojunction solar cells by applying high hydrogen content amorphous silicon as epitaxial-free buffer layers. Thin Solid Films, 2020, 711, 138305. | 1.8 | 7 |
| 39 | Controlled synthesis of few-layer SnSe ₂ by chemical vapor deposition. RSC Advances, 2020, 10, 42157-42163. | 3.6 | 14 |
| 40 | Strain Effect Enhanced Ultrasensitive MoS ₂ Nanoscroll Avalanche Photodetector. Journal of Physical Chemistry Letters, 2020, 11, 4490-4497. | 4.6 | 23 |
| 41 | Valley Polarization and Valleyresistance in a Monolayer Transition Metal Dichalcogenide Superlattice. Journal of Physical Chemistry Letters, 2020, 11, 3882-3888. | 4.6 | 4 |
| 42 | Influence of polytetrafluoroethylene (PTFE) on photovoltaic performance and perovskite solar cell stability. Sustainable Energy and Fuels, 2020, 4, 4257-4263. | 4.9 | 13 |
| 43 | Crystal phase tuning and valence engineering in non-noble catalysts for outstanding overall water splitting. Journal of Materials Chemistry A, 2020, 8, 4524-4532. | 10.3 | 13 |
| 44 | Photoelectric properties of quasi one-dimensional layered KP15. Materials Letters, 2020, 272, 127826. | 2.6 | 1 |
| 45 | Effect of residual water vapor on the performance of indium tin oxide film and silicon heterojunction solar cell. Solar Energy, 2020, 204, 720-725. | 6.1 | 9 |
| 46 | Facile and efficient preparation of high-quality black phosphorus quantum dot films for sensing applications. RSC Advances, 2020, 10, 13379-13385. | 3.6 | 2 |
| 47 | Nanoscrolls: High Performance Photodiode Based on Atomically Thin WSe ₂ /MoS ₂ Nanoscroll Integration (Small 30/2019). Small, 2019, 15, 1970160. | 10.0 | 3 |
| 48 | Effect of Nanobubble Evolution on Hydrate Process: A Review. Journal of Thermal Science, 2019, 28, 948-961. | 1.9 | 34 |
| 49 | CH ₃ NH ₃ Br solution as a novel platform for the selective fluorescence detection of Pb ²⁺ ions. Scientific Reports, 2019, 9, 15840. | 3.3 | 11 |
| 50 | Mechanism of PbI ₂ in Situ Passivated Perovskite Films for Enhancing the Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 44101-44108. | 8.0 | 100 |
| 51 | Simulation of double buffer layer on CIGS solar cell with SCAPS software. Optical and Quantum Electronics, 2019, 51, 1. | 3.3 | 26 |
| 52 | Metamaterial grating-integrated graphene photodetector with broadband high responsivity. Applied Surface Science, 2019, 473, 633-640. | 6.1 | 37 |
| 53 | Graphene/Si Schottky solar cells: a review of recent advances and prospects. RSC Advances, 2019, 9, 863-877. | 3.6 | 63 |
| 54 | Field enhanced in-plane homostructure in a pure MoSe ₂ phototransistor for the efficient separation of photo-excited carriers. Journal of Materials Chemistry C, 2019, 7, 1182-1187. | 5.5 | 6 |

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|----|--|------|-----------|
| 55 | Cascade-type energy band design of a black phosphorus photodetector with high performance. <i>Journal of Materials Chemistry C</i> , 2019, 7, 2232-2239. | 5.5 | 17 |
| 56 | Effect of deposition temperature of a-Si:H layer on the performance of silicon heterojunction solar cell. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 13330-13335. | 2.2 | 21 |
| 57 | High-Performance Photodiode Based on Atomically Thin WSe ₂ /MoS ₂ Nanoscroll Integration. <i>Small</i> , 2019, 15, e1901544. | 10.0 | 44 |
| 58 | Self-powered and fast photodetector based on graphene/MoSe ₂ /Au heterojunction. <i>Superlattices and Microstructures</i> , 2019, 130, 87-92. | 3.1 | 34 |
| 59 | Enhanced Performance of a CVD MoS ₂ Photodetector by Chemical in Situ n-Type Doping. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 11636-11644. | 8.0 | 82 |
| 60 | Enhanced properties of hierarchically-nanostructured undoped acceptor-rich ZnO single-crystal microtube irradiated by UV laser. <i>Journal of Alloys and Compounds</i> , 2019, 789, 841-851. | 5.5 | 11 |
| 61 | A tunable floating-base bipolar transistor based on a 2D material homojunction realized using a solid ionic dielectric material. <i>Nanoscale</i> , 2019, 11, 22531-22538. | 5.6 | 7 |
| 62 | Enhanced photoresponsivity of the GOQDs decorated WS ₂ photodetector. <i>Materials Research Express</i> , 2019, 6, 045902. | 1.6 | 14 |
| 63 | High performance photodetector based on graphene/MoS ₂ /graphene lateral heterostructure with Schottky junctions. <i>Journal of Alloys and Compounds</i> , 2019, 779, 140-146. | 5.5 | 68 |
| 64 | SnO ₂ -based electron transporting layer materials for perovskite solar cells: A review of recent progress. <i>Journal of Energy Chemistry</i> , 2019, 35, 144-167. | 12.9 | 129 |
| 65 | Highly In-plane Optical and Electrical Anisotropy of 2D Germanium Arsenide. <i>Advanced Functional Materials</i> , 2018, 28, 1707379. | 14.9 | 121 |
| 66 | Selective 6H-SiC White Light Emission by Picosecond Laser Direct Writing. <i>Scientific Reports</i> , 2018, 8, 257. | 3.3 | 8 |
| 67 | A highly polarization sensitive antimonene photodetector with a broadband photoresponse and strong anisotropy. <i>Journal of Materials Chemistry C</i> , 2018, 6, 2509-2514. | 5.5 | 66 |
| 68 | High Anisotropy in Tubular Layered Exfoliated KP ₁₅ . <i>ACS Nano</i> , 2018, 12, 1712-1719. | 14.6 | 24 |
| 69 | Building Integrated Photovoltaic Module-Based on Aluminum Substrate With Forced Water Cooling. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2018, 140, 0210051-210055. | 1.8 | 5 |
| 70 | Rediscovering the MP ₁₅ Family (M = Li, Na, and K) as an Anisotropic Layered Semiconducting Material. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 732-738. | 4.6 | 15 |
| 71 | Large-area perovskite solar cells – a review of recent progress and issues. <i>RSC Advances</i> , 2018, 8, 10489-10508. | 3.6 | 171 |
| 72 | Influences of donor defect passivation on the performance of Cu(In,Ga)Se ₂ thin-film solar cell. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 3482-3491. | 2.2 | 5 |

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|----|--|-----|-----------|
| 73 | Electrical Characteristics of a Hybrid Photovoltaic/Thermoelectric Generator System. <i>Energy Technology</i> , 2018, 6, 1248-1254. | 3.8 | 15 |
| 74 | Two dimensional materials based photodetectors. <i>Infrared Physics and Technology</i> , 2018, 88, 149-173. | 2.9 | 79 |
| 75 | Control of the structure and photoelectrical properties of Cu(InGa)Se ₂ film by Ga deposition potential in two-step electrodeposition. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 20104-20112. | 2.2 | 4 |
| 76 | Photoluminescence Lifetime of Black Phosphorus Nanoparticles and Their Applications in Live Cell Imaging. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 31136-31145. | 8.0 | 25 |
| 77 | Photodetectors: High Detectivity from a Lateral Graphene-MoS ₂ Schottky Photodetector Grown by Chemical Vapor Deposition (<i>Adv. Electron. Mater.</i> 9/2018). <i>Advanced Electronic Materials</i> , 2018, 4, 1870042. | 5.1 | 1 |
| 78 | High Detectivity from a Lateral Graphene-MoS ₂ Schottky Photodetector Grown by Chemical Vapor Deposition. <i>Advanced Electronic Materials</i> , 2018, 4, 1800069. | 5.1 | 42 |
| 79 | Nanowires of KP15 produced by liquid exfoliation. <i>Materials Letters</i> , 2018, 228, 89-91. | 2.6 | 6 |
| 80 | Exciton emissions in quasi one-dimensional layered KP15. <i>Nanoscale</i> , 2018, 10, 16479-16484. | 5.6 | 3 |
| 81 | Visible-infrared dual-mode MoS ₂ -graphene-MoS ₂ phototransistor with high ratio of the $I_{\text{on}}/I_{\text{off}}$ / $I_{\text{on}}/I_{\text{dark}}$. <i>2D Materials</i> , 2018, 5, 045027. | 4.4 | 28 |
| 82 | Understand the Degradation Mechanism of Electrochromic WO ₃ Films by Double-Step Chronoamperometry and Chronocoulometry Techniques Combined with <i>in situ</i> Spectroelectrochemical Study. <i>Electroanalysis</i> , 2017, 29, 1573-1585. | 2.9 | 17 |
| 83 | Optimization of the window layer in large area silicon heterojunction solar cells. <i>RSC Advances</i> , 2017, 7, 9258-9263. | 3.6 | 20 |
| 84 | Effects of substrates on Raman spectroscopy in chemical vapor deposition grown graphene transferred with poly (methyl methacrylate). <i>Solid State Communications</i> , 2017, 264, 31-34. | 1.9 | 14 |
| 85 | Electrochromic modulation of near-infrared light by WO ₃ films deposited on silver nanowire substrates. <i>Journal of Materials Science</i> , 2017, 52, 12783-12794. | 3.7 | 24 |
| 86 | Effect of different operating media on the PVT system. , 2017, , . | | 0 |
| 87 | Clarifying the preferential occupation of Ga ³⁺ ions in YAG:Ce,Ga nanocrystals with various Ga ³⁺ -doping concentrations by nuclear magnetic resonance spectroscopy. <i>Journal of Materials Chemistry C</i> , 2016, 4, 10691-10700. | 5.5 | 20 |
| 88 | Improvement on optical modulation and stability of the NiO based electrochromic devices by nanocrystalline modified nanocomb hybrid structure. <i>RSC Advances</i> , 2015, 5, 101487-101493. | 3.6 | 14 |
| 89 | Hydrothermal Fabrication and Catalytic Properties of YBa ₂ Cu ₃ O ₇ Single Crystallites for Methane Combustion. <i>Catalysis Letters</i> , 2010, 135, 126-134. | 2.6 | 8 |
| 90 | Electric-field regulated crystallization process for enhanced performance of perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 0, , . | 4.9 | 0 |