Yongzhe Zhang

List of Publications by Year
in descending order

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		257450	254184
90	2,250	24	43
papers	citations	h-index	g-index

92	92	92	3433
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Large-area perovskite solar cells â€“ a review of recent progress and issues. RSC Advances, 2018, 8, 10489-10508.	3.6	171
2	Engineering grain boundaries at theÂ2D limit for theÂhydrogen evolution reaction. Nature Communications, 2020, 11, 57.	12.8	153
3	SnO2-based electron transporting layer materials for perovskite solar cells: A review of recent progress. Journal of Energy Chemistry, 2019, 35, 144-167.	12.9	129
4	Highly Inâ€Plane Optical and Electrical Anisotropy of 2D Germanium Arsenide. Advanced Functional Materials, 2018, 28, 1707379.	14.9	121
5	Mechanism of PbI₂ in Situ Passivated Perovskite Films for Enhancing the Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 44101-44108.	8.0	100
6	Integrated Molar Chiral Sensing Based on High-Q Metasurface. Nano Letters, 2020, 20, 8696-8703.	9.1	89
7	Enhanced Performance of a CVD MoS₂ Photodetector by Chemical in Situ n-Type Doping. ACS Applied Materials & Interfaces, 2019, 11, 11636-11644.	8.0	82
8	Two dimensional materials based photodetectors. Infrared Physics and Technology, 2018, 88, 149-173.	2.9	79
9	High performance photodetector based on graphene/MoS2/graphene lateral heterostrurcture with Schottky junctions. Journal of Alloys and Compounds, 2019, 779, 140-146.	5.5	68
10	A highly polarization sensitive antimonene photodetector with a broadband photoresponse and strong anisotropy. Journal of Materials Chemistry C, 2018, 6, 2509-2514.	5.5	66
11	Graphene/Si Schottky solar cells: a review of recent advances and prospects. RSC Advances, 2019, 9, 863-877.	3.6	63
12	Identification of embedded nanotwins at c-Si/a-Si:H interface limiting the performance of high-efficiency silicon heterojunction solar cells. Nature Energy, 2021, 6, 194-202.	39.5	52
13	Highâ€Performance Photodiode Based on Atomically Thin WSe₂/MoS₂ Nanoscroll Integration. Small, 2019, 15, e1901544.	10.0	44
14	Effect of temperature on the performance of perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2021, 32, 12784-12792.	2.2	44
15	High Detectivity from a Lateral Grapheneâ€“MoS₂ Schottky Photodetector Grown by Chemical Vapor Deposition. Advanced Electronic Materials, 2018, 4, 1800069.	5.1	42
16	Toward Efficiency Limits of Crystalline Silicon Solar Cells: Recent Progress in Highâ€Efficiency Silicon Heterojunction Solar Cells. Advanced Energy Materials, 2022, 12, .	19.5	41
17	Metamaterial grating-integrated graphene photodetector with broadband high responsivity. Applied Surface Science, 2019, 473, 633-640.	6.1	37
18	Effect of Nanobubble Evolution on Hydrate Process: A Review. Journal of Thermal Science, 2019, 28, 948-961.	1.9	34

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19	Self-powered and fast photodetector based on graphene/MoSe2/Au heterojunction. Superlattices and Microstructures, 2019, 130, 87-92.	3.1	34
20	Dual Optimization of Bulk and Surface via Guanidine Halide for Efficient and Stable 2D/3D Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	19.5	30
21	Influence of Fluorinated Components on Perovskite Solar Cells Performance and Stability. Small, 2021, 17, e2004081.	10.0	29
22	Visible-infrared dual-mode MoS ₂ -graphene-MoS ₂ phototransistor with high ratio of the I _{ph} / I _{dark}. 2D Materials, 2018, 5, 045027.	4.4	28
23	Carrier mobility tuning of MoS2 by strain engineering in CVD growth process. Nano Research, 2021, 14, 2314.	10.4	27
24	Simulation of double buffer layer on CIGS solar cell with SCAPS software. Optical and Quantum Electronics, 2019, 51, 1.	3.3	26
25	Photoluminescence Lifetime of Black Phosphorus Nanoparticles and Their Applications in Live Cell Imaging. ACS Applied Materials & Interfaces, 2018, 10, 31136-31145.	8.0	25
26	Electrochromic modulation of near-infrared light by WO3 films deposited on silver nanowire substrates. Journal of Materials Science, 2017, 52, 12783-12794.	3.7	24
27	High Anisotropy in Tubular Layered Exfoliated KP₁₅. ACS Nano, 2018, 12, 1712-1719.	14.6	24
28	Strain Effect Enhanced Ultrasensitive MoS₂ Nanoscroll Avalanche Photodetector. Journal of Physical Chemistry Letters, 2020, 11, 4490-4497.	4.6	23
29	Effect of deposition temperature of a-Si:H layer on the performance of silicon heterojunction solar cell. Journal of Materials Science: Materials in Electronics, 2019, 30, 13330-13335.	2.2	21
30	Clarifying the preferential occupation of Ga³⁺ ions in YAG:Ce,Ga nanocrystals with various Ga³⁺-doping concentrations by nuclear magnetic resonance spectroscopy. Journal of Materials Chemistry C, 2016, 4, 10691-10700.	5.5	20
31	Optimization of the window layer in large area silicon heterojunction solar cells. RSC Advances, 2017, 7, 9258-9263.	3.6	20
32	p-/n-Type modulation of 2D transition metal dichalcogenides for electronic and optoelectronic devices. Nano Research, 2022, 15, 123-144.	10.4	20
33	Understand the Degradation Mechanism of Electrochromic WO₃ Films by Doubleâ€step Chronoamperometry and Chronocoulometry Techniques Combined with in situ Spectroelectrochemical Study. Electroanalysis, 2017, 29, 1573-1585.	2.9	17
34	Cascade-type energy band design of a black phosphorus photodetector with high performance. Journal of Materials Chemistry C, 2019, 7, 2232-2239.	5.5	17
35	Application of Indium Tin Oxide/Aluminum-Doped Zinc Oxide Transparent Conductive Oxide Stack Films in Silicon Heterojunction Solar Cells. ACS Applied Energy Materials, 2021, 4, 13586-13592.	5.1	17
36	Switchable Unipolarâ€Barrier Van der Waals Heterostructures with Natural Anisotropy for Full Linear Polarimetry Detection. Advanced Materials, 2022, 34, .	21.0	17

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37	Binary-ternary transition metal chalcogenides interlayer coupling in van der Waals type-II heterostructure for visible-infrared photodetector with efficient suppression dark currents. Nano Research, 2022, 15, 2689-2696.	10.4	16
38	Rediscovering the MP₁₅ Family (M = Li, Na, and K) as an Anisotropic Layered Semiconducting Material. Journal of Physical Chemistry Letters, 2018, 9, 732-738.	4.6	15
39	Electrical Characteristics of a Hybrid Photovoltaic/Thermoelectric Generator System. Energy Technology, 2018, 6, 1248-1254.	3.8	15
40	Rapid degradation behavior of encapsulated perovskite solar cells under light, bias voltage or heat fields. Nanoscale Advances, 2021, 3, 6128-6137.	4.6	15
41	A Highâ€Performance Inâ€Memory Photodetector Realized by Charge Storage in a van der Waals MISFET. Advanced Materials, 2022, 34, e2107734.	21.0	15
42	Improvement on optical modulation and stability of the NiO based electrochromic devices by nanocrystalline modified nanocomb hybrid structure. RSC Advances, 2015, 5, 101487-101493.	3.6	14
43	Effects of substrates on Raman spectroscopy in chemical vapor deposition grown graphene transferred with poly (methyl methacrylate). Solid State Communications, 2017, 264, 31-34.	1.9	14
44	Enhanced photoresponsivity of the GOQDs decorated WS₂ photodetector. Materials Research Express, 2019, 6, 045902.	1.6	14
45	Controlled synthesis of few-layer SnSe₂ by chemical vapor deposition. RSC Advances, 2020, 10, 42157-42163.	3.6	14
46	High performance sub-bandgap photodetection via internal photoemission based on ideal metal/2D-material van der Waals Schottky interface. Nanoscale, 2021, 13, 16448-16456.	5.6	14
47	Influence of polytetrafluoroethylene (PTFE) on photovoltaic performance and perovskite solar cell stability. Sustainable Energy and Fuels, 2020, 4, 4257-4263.	4.9	13
48	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
49	Enhanced Photodetection Performance in Graphene-Assisted Tunneling Photodetector. IEEE Transactions on Electron Devices, 2021, 68, 1702-1709.	3.0	13
50	The Chinese medicine Fufang Zhenzhu Tiaozhi capsule protects against renal injury and inflammation in mice with diabetic kidney disease. Journal of Ethnopharmacology, 2022, 292, 115165.	4.1	13
51	CH3NH3Br solution as a novel platform for the selective fluorescence detection of Pb2+ ions. Scientific Reports, 2019, 9, 15840.	3.3	11
52	Enhanced properties of hierarchically-nanostructured undoped acceptor-rich ZnO single-crystal microtube irradiated by UV laser. Journal of Alloys and Compounds, 2019, 789, 841-851.	5.5	11
53	Liquid Exfibration and Optoelectronic Devices of Fibrous Phosphorus. Inorganic Chemistry, 2020, 59, 976-979.	4.0	11
54	Limiting Factors of Detectivity in Near-Infrared Colloidal Quantum Dot Photodetectors. ACS Applied Materials & Interfaces, 2022, 14, 25812-25823.	8.0	11

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55	Direct fabrication of electrochromic Ni-MOF 74 film on ITO with high-stable performance. Ionics, 2021, 27, 3655-3662.	2.4	10
56	Infrared colloidal quantum dots for photoelectric conversion devices. Journal of Materials Chemistry C, 2021, 9, 2994-3025.	5.5	9
57	Growth of centimeter scale Nb1â˜'xWxSe2 monolayer film by promoter assisted liquid phase chemical vapor deposition. Nano Research, 2022, 15, 2608-2615.	10.4	9
58	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
59	Hydrothermal Fabrication and Catalytic Properties of YBa2Cu3O7 Single Crystallites for Methane Combustion. Catalysis Letters, 2010, 135, 126-134.	2.6	8
60	Selective 6H-SiC White Light Emission by Picosecond Laser Direct Writing. Scientific Reports, 2018, 8, 257.	3.3	8
61	Flexible perovskite solar cells fabricated by a gradient heat treatment process. Sustainable Energy and Fuels, 2020, 4, 824-831.	4.9	8
62	Spectral Discrimination Sensors Based on Nanomaterials and Nanostructures: A Review. IEEE Sensors Journal, 2021, 21, 4044-4060.	4.7	8
63	Design and Performance Study of Hybrid Graphene/HgCdTe Mid-Infrared Photodetector. IEEE Sensors Journal, 2021, 21, 26708-26715.	4.7	8
64	A tunable floating-base bipolar transistor based on a 2D material homojunction realized using a solid ionic dielectric material. Nanoscale, 2019, 11, 22531-22538.	5.6	7
65	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
66	Minimizing Openâ€Circuit Voltage Loss in Perovskite/Si Tandem Solar Cells via Exploring the Synergic Effect of Cations and Anions. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100119.	2.4	7
67	Nanowires of KP15 produced by liquid exfoliation. Materials Letters, 2018, 228, 89-91.	2.6	6
68	Field enhanced in-plane homostructure in a pure MoSe₂ phototransistor for the efficient separation of photo-excited carriers. Journal of Materials Chemistry C, 2019, 7, 1182-1187.	5.5	6
69	Improved efficiency and stability of flexible perovskite solar cells by a new spacer cation additive. RSC Advances, 2021, 11, 33637-33645.	3.6	6
70	Building Integrated Photovoltaic Module-Based on Aluminum Substrate With Forced Water Cooling. Journal of Solar Energy Engineering, Transactions of the ASME, 2018, 140, 0210051-210055.	1.8	5
71	Influences of donor defect passivation on the performance of Cu(In,Ga)Se2 thin-film solar cell. Journal of Materials Science: Materials in Electronics, 2018, 29, 3482-3491.	2.2	5
72	Controllable Liquid Exfoliation of Fibrous Phosphorus and Its Live-Cell Imaging. Inorganic Chemistry, 2021, 60, 4883-4890.	4.0	5

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73	Lightâ€Rewritable Logic Devices Based on Van der Waals Heterostructures. Advanced Electronic Materials, 2022, 8, 2100708.	5.1	5
74	Toward Efficiency Limits of Crystalline Silicon Solar Cells: Recent Progress in Highâ€Efficiency Silicon Heterojunction Solar Cells (Adv. Energy Mater. 23/2022). Advanced Energy Materials, 2022, 12, .	19.5	5
75	Control of the structure and photoelectrical properties of Cu(InGa)Se2 film by Ga deposition potential in two-step electrodeposition. Journal of Materials Science: Materials in Electronics, 2018, 29, 20104-20112.	2.2	4
76	Valley Polarization and Valleyresistance in a Monolayer Transition Metal Dichalcogenide Superlattice. Journal of Physical Chemistry Letters, 2020, 11, 3882-3888.	4.6	4
77	Deacetylated Sp1 improves Î²â€‘glycerophosphateâ€‘induced calcification in vascular smooth muscle cells. Experimental and Therapeutic Medicine, 2021, 22, 1152.	1.8	4
78	Performance of heterojunction solar cells with different intrinsic a-Si:H thin layers deposited by RF- and VHF-PECVD. Journal of Materials Science: Materials in Electronics, 2021, 32, 25327-25331.	2.2	4
79	Exciton emissions in quasi one-dimensional layered KP15. Nanoscale, 2018, 10, 16479-16484.	5.6	3
80	Nanoscrolls: Highâ€Performance Photodiode Based on Atomically Thin WSe₂/MoS₂ Nanoscroll Integration (Small 30/2019). Small, 2019, 15, 1970160.	10.0	3
81	All-Inorganic Perovskite Nanosheet Fabrication under Synergistic Effect for Integrated Optoelectronics with Strong Lightâ€“Matter Interactions. ACS Applied Nano Materials, 2021, 4, 2634-2641.	5.0	3
82	Transition metal dichalcogenides thyristor realized by solid ionic conductor gate induced doping. Applied Physics Letters, 2020, 117, 053102.	3.3	2
83	Facile and efficient preparation of high-quality black phosphorus quantum dot films for sensing applications. RSC Advances, 2020, 10, 13379-13385.	3.6	2
84	Photodetectors: High Detectivity from a Lateral Grapheneâ€“MoS₂ Schottky Photodetector Grown by Chemical Vapor Deposition (Adv. Electron. Mater. 9/2018). Advanced Electronic Materials, 2018, 4, 1870042.	5.1	1
85	Photoelectric properties of quasi one-dimensional layered KP15. Materials Letters, 2020, 272, 127826.	2.6	1
86	The fault detection of transmitting current encoded by m-sequence using triple-correlation function in helicopter-borne electromagnetic method. Review of Scientific Instruments, 2022, 93, 074501.	1.3	1
87	A Simulation of the Impact of Curb Parking Behavior on Traffic Based on a Cellular Automata Model. , 2020, , .		0
88	Effect of different operating media on the PVT system. , 2017, , .		0
89	Electric-field regulated crystallization process for enhanced performance of perovskite solar cells. Sustainable Energy and Fuels, 0, , .	4.9	0
90	Dual tunable terahertz polarization conversion enabled by Double-Layer Graphene Metasurface. Optics Communications, 2022, 521, 128575.	2.1	0