

Zhou Yang

List of Publications by Year in descending order

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83
papers

10,426
citations

71102

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66911

78
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84
all docs

84
docs citations

84
times ranked

9307
citing authors

#	ARTICLE	IF	CITATIONS
1	Lead-free molecular one-dimensional perovskite for efficient X-ray detection. Journal of Energy Chemistry, 2022, 64, 209-213.	12.9	15
2	Ion Accumulation-Induced Charge Tunneling for High Gain Factor in $\text{Pb}(\text{CH}_3\text{NH}_3)_3\text{PbI}_3$ Structured Perovskite X-ray Detector. Advanced Materials Technologies, 2022, 7, 2100908.	5.8	15
3	Flexible, High Scintillation Yield $\text{Cu}_3\text{Cu}_2\text{I}_5$ Film Made of Ball-Milled Powder for High Spatial Resolution X-ray Imaging. Advanced Optical Materials, 2022, 10, .	7.3	37
4	Estimating litchi flower number using a multicolumn convolutional neural network based on a density map. Precision Agriculture, 2022, 23, 1226-1247.	6.0	9
5	Inch-size $\text{Cs}_3\text{Bi}_2\text{I}_9$ polycrystalline wafers with near-intrinsic properties for ultralow-detection-limit X-ray detection. Journal of Materials Chemistry C, 2022, 10, 6665-6672.	5.5	18
6	Cesium Lead Halide Nanocrystals based Flexible X-ray Imaging Screen and Visible Dose Rate Indication on Paper Substrate. Advanced Optical Materials, 2022, 10, .	7.3	39
7	Electrochemically Fabricated Surface-Mesostructured CuNi Bimetallic Catalysts for Hydrogen Production in Alkaline Media. Nanomaterials, 2022, 12, 118.	4.1	4
8	Multifunctional Enhancement for Highly Stable and Efficient Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2005776.	14.9	273
9	A facile template-assisted electrodeposition approach to porous $\text{Cu/Cu}_2\text{O}$ nanowires. RSC Advances, 2021, 11, 30215-30221.	3.6	4
10	Triple-Cation and Mixed-Halide Perovskite Single Crystal for High-Performance X-ray Imaging. Advanced Materials, 2021, 33, e2006010.	21.0	163
11	Halide perovskites for high-performance X-ray detector. Materials Today, 2021, 48, 155-175.	14.2	163
12	Inch-sized high-quality perovskite single crystals by suppressing phase segregation for light-powered integrated circuits. Science Advances, 2021, 7, .	10.3	81
13	Centimeter-Sized Molecular Perovskite Crystal for Efficient X-ray Detection. Advanced Functional Materials, 2021, 31, 2100691.	14.9	22
14	Performance Evaluation of a Banana Pseudostem Chopper. HortTechnology, 2021, 31, 208-216.	0.9	0
15	Highly Luminescent Metal-Free Perovskite Single Crystal for Biocompatible X-ray Detector to Attain Highest Sensitivity. Advanced Materials, 2021, 33, e2102190.	21.0	46
16	Halide-modulated self-assembly of metal-free perovskite single crystals for bio-friendly X-ray detection. Matter, 2021, 4, 2490-2507.	10.0	47
17	Grain and stoichiometry engineering for ultra-sensitive perovskite X-ray detectors. Journal of Materials Chemistry A, 2021, 9, 25603-25610.	10.3	18
18	Flexible Diodes/Transistors Based on Tunable p-n-Type Semiconductivity in Graphene/Mn-Co-Ni-O Nanocomposites. Research, 2021, 2021, 9802795.	5.7	2

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19	Grapheneâ€“MCN pn-junction for ultrafast flexible ultraviolet detector. MRS Communications, 2021, 11, 862.	1.8	0
20	Above-Band-Gap Voltage from Oriented Bismuth Ferrite Ceramic Photovoltaic Cells. ACS Applied Energy Materials, 2021, 4, 12703-12708.	5.1	6
21	27%â€“Efficiency Fourâ€“Terminal Perovskite/Silicon Tandem Solar Cells by Sandwiched Gold Nanomesh. Advanced Functional Materials, 2020, 30, 1908298.	14.9	91
22	2D Perovskite Single Crystals with Suppressed Ion Migration for Highâ€“Performance Planarâ€“Type Photodetectors. Small, 2020, 16, e2003145.	10.0	56
23	Metalâ€“Free Halide Perovskite Single Crystals with Very Long Charge Lifetimes for Efficient Xâ€“ray Imaging. Advanced Materials, 2020, 32, e2003353.	21.0	68
24	Efficient X-ray Attenuation Lead-Free AgBi ₂ I ₇ Halide Rudorffite Alternative for Sensitive and Stable X-ray Detection. Journal of Physical Chemistry Letters, 2020, 11, 7939-7945.	4.6	34
25	Nucleation-controlled growth of superior lead-free perovskite Cs ₃ Bi ₂ I ₉ single-crystals for high-performance X-ray detection. Nature Communications, 2020, 11, 2304.	12.8	286
26	Inch-Size OD-Structured Lead-Free Perovskite Single Crystals for Highly Sensitive Stable X-Ray Imaging. Matter, 2020, 3, 180-196.	10.0	202
27	Orchard Spray Study: A Prediction Model of Droplet Deposition States on Leaf Surfaces. Agronomy, 2020, 10, 747.	3.0	17
28	Large and Dense Organicâ€“Inorganic Hybrid Perovskite CH ₃ NH ₃ PbI ₃ Wafer Fabricated by One-Step Reactive Direct Wafer Production with High X-ray Sensitivity. ACS Applied Materials & Interfaces, 2020, 12, 16592-16600.	8.0	94
29	Rapid colorimetric sensing of ascorbic acid based on the excellent peroxidase-like activity of Pt deposited on ZnCo ₂ O ₄ spheres. New Journal of Chemistry, 2020, 44, 12002-12008.	2.8	18
30	Direct Growth of Pyramidâ€“Textured Perovskite Single Crystals: A New Strategy for Enhanced Optoelectronic Performance. Advanced Functional Materials, 2020, 30, 2002742.	14.9	20
31	Large Leadâ€“Free Perovskite Single Crystal for Highâ€“Performance Coplanar Xâ€“ray Imaging Applications. Advanced Optical Materials, 2020, 8, 2000814.	7.3	67
32	Controlled nâ€“Doping in Airâ€“Stable CsPbI ₂ Br Perovskite Solar Cells with a Record Efficiency of 16.79%. Advanced Functional Materials, 2020, 30, 1909972.	14.9	282
33	Highly stable and efficient perovskite solar cells produced via high-boiling point solvents and additive engineering synergistically. Science China Chemistry, 2020, 63, 818-826.	8.2	11
34	A Novel Anion Doping for Stable CsPbI ₂ Br Perovskite Solar Cells with an Efficiency of 15.56% and an Open Circuit Voltage of 1.30 V. Advanced Energy Materials, 2019, 9, 1902279.	19.5	166
35	Hierarchical ZnO Microspheres Embedded in TiO ₂ Photoanode for Enhanced CdS/CdSe Sensitized Solar Cells. ACS Applied Energy Materials, 2019, 2, 1259-1265.	5.1	7
36	Two-dimensional (PEA) ₂ PbBr ₄ perovskite single crystals for a high performance UV-detector. Journal of Materials Chemistry C, 2019, 7, 1584-1591.	5.5	138

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37	Low-Temperature Solution-Processed ZnO Electron Transport Layer for Highly Efficient and Stable Planar Perovskite Solar Cells with Efficiency Over 20%. Solar Rrl, 2019, 3, 1900096.	5.8	66
38	Electromagnetic Responses and Coupling Effect in Asymmetric Terahertz Metamaterials. , 2019, , .		1
39	PbTiO ₃ as Electron-Selective Layer for High-Efficiency Perovskite Solar Cells: Enhanced Electron Extraction via Tunable Ferroelectric Polarization. Advanced Functional Materials, 2019, 29, 1806427.	14.9	23
40	Dynamical Transformation of Two-Dimensional Perovskites with Alternating Cations in the Interlayer Space for High-Performance Photovoltaics. Journal of the American Chemical Society, 2019, 141, 2684-2694.	13.7	189
41	Chelate-Pb Intermediate Engineering for High-Efficiency Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 14744-14750.	8.0	15
42	Bifunctional Hydroxylamine Hydrochloride Incorporated Perovskite Films for Efficient and Stable Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 900-909.	5.1	81
43	High-Performance Planar Perovskite Solar Cells Using Low Temperature, Solution-Based Nickel Oxide Hole Transporting Layer with Efficiency Exceeding 20%. Advanced Energy Materials, 2018, 8, 1703432.	19.5	279
44	Stable High-Performance Perovskite Solar Cells via Grain Boundary Passivation. Advanced Materials, 2018, 30, e1706576.	21.0	665
45	High performance ambient-air-stable FAPbI ₃ perovskite solar cells with molecule-passivated Ruddlesden-Popper/3D heterostructured film. Energy and Environmental Science, 2018, 11, 3358-3366.	30.8	196
46	Magnetic Field Driven Larger Grain Growth for Perovskite Film with Enhanced Photovoltaic Performance. , 2018, , .		1
47	Multi-inch single-crystalline perovskite membrane for high-detectivity flexible photosensors. Nature Communications, 2018, 9, 5302.	12.8	212
48	High-Quality Sequential Vapor-Deposited Cs ₂ AgBiBr ₆ Thin Films for Lead-Free Perovskite Solar Cells (Solar RRL 12 th 2018). Solar Rrl, 2018, 2, 1870238.	5.8	9
49	High-Quality Sequential Vapor-Deposited Cs ₂ AgBiBr ₆ Thin Films for Lead-Free Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800217.	5.8	138
50	In Situ Grain Boundary Modification via Two-Dimensional Nanoplates to Remarkably Improve Stability and Efficiency of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 39802-39808.	8.0	24
51	A Sandwich-Like Organolead Halide Perovskite Photocathode for Efficient and Durable Photoelectrochemical Hydrogen Evolution in Water. Advanced Energy Materials, 2018, 8, 1800795.	19.5	106
52	A 1300 mm ² Ultrahigh-Performance Digital Imaging Assembly using High-Quality Perovskite Single Crystals. Advanced Materials, 2018, 30, e1707314.	21.0	246
53	Synergistic enhancement of Cs and Br doping in formamidinium lead halide perovskites for high performance optoelectronics. CrystEngComm, 2018, 20, 5510-5518.	2.6	6
54	Enhanced Planar Perovskite Solar Cell Performance via Contact Passivation of TiO ₂ /Perovskite Interface with NaCl Doping Approach. ACS Applied Energy Materials, 2018, 1, 3826-3834.	5.1	68

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55	Record Efficiency Stable Flexible Perovskite Solar Cell Using Effective Additive Assistant Strategy. <i>Advanced Materials</i> , 2018, 30, e1801418.	21.0	377
56	Highly efficient perovskite solar cells based on a dopant-free conjugated DPP polymer hole transport layer: influence of solvent vapor annealing. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2154-2159.	4.9	24
57	Solution Coating of Superior Large-Area Flexible Perovskite Thin Films with Controlled Crystal Packing. <i>Advanced Optical Materials</i> , 2017, 5, 1700102.	7.3	34
58	Solution-Processed Nb:SnO ₂ Electron Transport Layer for Efficient Planar Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 2421-2429.	8.0	315
59	120 mm single-crystalline perovskite and wafers: towards viable applications. <i>Science China Chemistry</i> , 2017, 60, 1367-1376.	8.2	107
60	Local temperature reduction induced crystallization of MASn ₃ and achieving a direct wafer production. <i>RSC Advances</i> , 2017, 7, 38155-38159.	3.6	17
61	Stable high efficiency two-dimensional perovskite solar cells via cesium doping. <i>Energy and Environmental Science</i> , 2017, 10, 2095-2102.	30.8	588
62	High-Performance, Self-Powered Photodetectors Based on Perovskite and Graphene. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 42779-42787.	8.0	91
63	Tellurium-Assisted Epitaxial Growth of Large-Area, Highly Crystalline ReS ₂ Atomic Layers on Mica Substrate. <i>Advanced Materials</i> , 2016, 28, 5019-5024.	21.0	169
64	Band alignment of TiO ₂ /FTO interface determined by X-ray photoelectron spectroscopy: Effect of annealing. <i>AIP Advances</i> , 2016, 6, .	1.3	17
65	Optical and electrical properties of high-quality Ti ₂ O ₃ epitaxial film grown on sapphire substrate. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	10
66	Stable high efficiency perovskite solar cells using vacuum deposition. , 2016, , .		0
67	20-µm Large Single-Crystalline Formamidinium Perovskite Wafer for Mass Production of Integrated Photodetectors. <i>Advanced Optical Materials</i> , 2016, 4, 1829-1837.	7.3	316
68	Thickness- and Shape-Controlled Growth for Ultrathin Single-Crystalline Perovskite Wafers for Mass Production of Superior Photoelectronic Devices. <i>Advanced Materials</i> , 2016, 28, 9204-9209.	21.0	296
69	Surface optimization to eliminate hysteresis for record efficiency planar perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 3071-3078.	30.8	870
70	Neural correlates of restrained eaters'™ high susceptibility to food cues: An fMRI study. <i>Neuroscience Letters</i> , 2016, 631, 56-62.	2.1	25
71	Perovskite CH ₃ NH ₃ Pb(Br _x I _{1-x}) ₃ single crystals with controlled composition for fine-tuned bandgap towards optimized optoelectronic applications. <i>Journal of Materials Chemistry C</i> , 2016, 4, 9172-9178.	5.5	120
72	Atomic Layers: Tellurium-Assisted Epitaxial Growth of Large-Area, Highly Crystalline ReS ₂ Atomic Layers on Mica Substrate (<i>Adv. Mater.</i> 25/2016). <i>Advanced Materials</i> , 2016, 28, 5018-5018.	21.0	5

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73	Improved PEDOT:PSS/c-Si hybrid solar cell using inverted structure and effective passivation. Scientific Reports, 2016, 6, 35091.	3.3	60
74	Perovskite Wafers: Thinness and Shape Controlled Growth for Ultrathin Single Crystalline Perovskite Wafers for Mass Production of Superior Photoelectronic Devices (Adv. Mater. 41/2016). Advanced Materials, 2016, 28, 9203-9203.	21.0	3
75	Hysteresis Suppressed High Efficiency Flexible Perovskite Solar Cells Using Solid State Ionic Liquids for Effective Electron Transport. Advanced Materials, 2016, 28, 5206-5213.	21.0	387
76	Effective solvent-additive enhanced crystallization and coverage of absorber layers for high efficiency formamidinium perovskite solar cells. RSC Advances, 2016, 6, 56807-56811.	3.6	25
77	Color-Tuned Perovskite Films Prepared for Efficient Solar Cell Applications. Journal of Physical Chemistry C, 2016, 120, 42-47.	3.1	106
78	From Polymer to Monomer: Cleavage and Rearrangement of Si-O-Si Bonds after Oxidation Yielded an Ordered Cyclic Crystallized Structure. Chemistry - A European Journal, 2015, 21, 10972-10977.	3.3	18
79	Frontispiece: From Polymer to Monomer: Cleavage and Rearrangement of Si-O-Si Bonds after Oxidation Yielded an Ordered Cyclic Crystallized Structure. Chemistry - A European Journal, 2015, 21, n/a-n/a.	3.3	0
80	Two Inch Sized Perovskite $\text{CH}_3\text{NH}_3\text{PbX}_3$ (X = Cl, Br, I) Crystals: Growth and Characterization. Advanced Materials, 2015, 27, 5176-5183.	21.0	914
81	Alternating precursor layer deposition for highly stable perovskite films towards efficient solar cells using vacuum deposition. Journal of Materials Chemistry A, 2015, 3, 9401-9405.	10.3	146
82	High efficiency flexible perovskite solar cells using superior low temperature TiO_2 . Energy and Environmental Science, 2015, 8, 3208-3214.	30.8	519
83	Room temperature H ₂ S micro-sensors with anti-humidity properties fabricated from NiO-In ₂ O ₃ composite nanofibers. Science Bulletin, 2013, 58, 821-826.	1.7	15