

Xiaodong Ren

List of Publications by Year in descending order

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47
papers

6,384
citations

159585
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214800
47
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47
docs citations

47
times ranked

7516
citing authors

#	ARTICLE	IF	CITATIONS
1	High efficiency planar-type perovskite solar cells with negligible hysteresis using EDTA-complexed SnO ₂ . Nature Communications, 2018, 9, 3239.	12.8	1,017
2	Two-Inch-Sized Perovskite CH ₃ NH ₃ PbX ₃ (X = Cl, Br, I) Crystals: Growth and Characterization. Advanced Materials, 2015, 27, 5176-5183.	21.0	914
3	Stable high efficiency two-dimensional perovskite solar cells via cesium doping. Energy and Environmental Science, 2017, 10, 2095-2102.	30.8	588
4	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
5	One-step hydrothermal synthesis of monolayer MoS ₂ quantum dots for highly efficient electrocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2015, 3, 10693-10697.	10.3	320
6	20-cm Large Single-Crystalline Formamidinium Perovskite Wafer for Mass Production of Integrated Photodetectors. Advanced Optical Materials, 2016, 4, 1829-1837.	7.3	316
7	Solution-Processed Nb:SnO ₂ Electron Transport Layer for Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 2421-2429.	8.0	315
8	Thickness- and Shape-Controlled Growth for Ultrathin Single-Crystalline Perovskite Wafers for Mass Production of Superior Photoelectronic Devices. Advanced Materials, 2016, 28, 9204-9209.	21.0	296
9	High-Efficiency Perovskite Solar Cells with Imidazolium-Based Ionic Liquid for Surface Passivation and Charge Transport. Angewandte Chemie - International Edition, 2021, 60, 4238-4244.	13.8	221
10	Modulating crystal grain size and optoelectronic properties of perovskite films for solar cells by reaction temperature. Nanoscale, 2016, 8, 3816-3822.	5.6	179
11	Triple-Cation and Mixed-Halide Perovskite Single Crystal for High-Performance X-ray Imaging. Advanced Materials, 2021, 33, e2006010.	21.0	163
12	High-Pressure Nitrogen Extraction and Effective Passivation to Attain Highest Large-Area Perovskite Solar Module Efficiency. Advanced Materials, 2020, 32, e2004979.	21.0	145
13	Antisolvent with an Ultrawide Processing Window for the One-Step Fabrication of Efficient and Large-Area Perovskite Solar Cells. Advanced Materials, 2018, 30, e1802763.	21.0	130
14	40.1% Record Low-Light Solar Cell Efficiency by Holistic Trap Passivation using Micrometer-Thick Perovskite Film. Advanced Materials, 2021, 33, e2100770.	21.0	110
15	120 mm single-crystalline perovskite and wafers: towards viable applications. Science China Chemistry, 2017, 60, 1367-1376.	8.2	107
16	Color-Tuned Perovskite Films Prepared for Efficient Solar Cell Applications. Journal of Physical Chemistry C, 2016, 120, 42-47.	3.1	106
17	Ionic Liquid Treatment for Highest-Efficiency Ambient Printed Stable All-Inorganic CsPbI ₃ Perovskite Solar Cells. Advanced Materials, 2022, 34, e2106750.	21.0	97
18	27% Efficiency Four-Terminal Perovskite/Silicon Tandem Solar Cells by Sandwiched Gold Nanomesh. Advanced Functional Materials, 2020, 30, 1908298.	14.9	91

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19	Inch-sized high-quality perovskite single crystals by suppressing phase segregation for light-powered integrated circuits. <i>Science Advances</i> , 2021, 7, .	10.3	81
20	Stable High-Performance Flexible Photodetector Based on Upconversion Nanoparticles/Perovskite Microarrays Composite. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 19176-19183.	8.0	70
21	Efficient perovskite solar cells via surface passivation by a multifunctional small organic ionic compound. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8313-8322.	10.3	68
22	Large Lead-Free Perovskite Single Crystal for High-Performance Coplanar X-Ray Imaging Applications. <i>Advanced Optical Materials</i> , 2020, 8, 2000814.	7.3	67
23	Film Formation Control for High Performance Dion-Jacobson 2D Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2002733.	19.5	62
24	Improved PEDOT:PSS/c-Si hybrid solar cell using inverted structure and effective passivation. <i>Scientific Reports</i> , 2016, 6, 35091.	3.3	60
25	Chlorine-modified SnO ₂ electron transport layer for high-efficiency perovskite solar cells. <i>Informa-Materially</i> , 2020, 2, 401-408.	17.3	48
26	Topology and texture controlled ZnO thin film electrodeposition for superior solar cell efficiency. <i>Solar Energy Materials and Solar Cells</i> , 2015, 134, 54-59.	6.2	40
27	Ligand-Anchoring-Induced Oriented Crystal Growth for High-Efficiency Lead-Tin Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	38
28	Chemical Bath Deposition of Co-Doped TiO ₂ Electron Transport Layer for Hysteresis-Suppressed High-Efficiency Planar Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900176.	5.8	36
29	CO ₂ Plasma-Treated TiO ₂ Film as an Effective Electron Transport Layer for High-Performance Planar Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 33989-33996.	8.0	35
30	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
31	Revisiting an important component of plant genomes: microsatellites. <i>Functional Plant Biology</i> , 2013, 40, 645.	2.1	29
32	Proton-transfer-induced in situ defect passivation for highly efficient wide-bandgap inverted perovskite solar cells. <i>Informa-Materially</i> , 2022, 4, .	17.3	27
33	Effective solvent-additive enhanced crystallization and coverage of absorber layers for high efficiency formamidinium perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 56807-56811.	3.6	25
34	Deep-Level Transient Spectroscopy for Effective Passivator Selection in Perovskite Solar Cells to Attain High Efficiency over 23%. <i>ChemSusChem</i> , 2021, 14, 3182-3189.	6.8	24
35	Ag nanoparticle enhanced light trapping in hydrogenated amorphous silicon germanium solar cells on flexible stainless steel substrate. <i>Solar Energy Materials and Solar Cells</i> , 2016, 144, 63-67.	6.2	22
36	Highly Efficient and Stable CsPbTh ₃ (Th = I, Br, Cl) Perovskite Solar Cells by Combinational Passivation Strategy. <i>Advanced Science</i> , 2022, 9, e2105103.	11.2	20

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37	Ion Accumulation-Induced Charge Tunneling for High Gain Factor in $\text{Pb}(\text{CH}_3\text{NH}_2)_3\text{PbI}_3$ X-Ray Detector. <i>Advanced Materials Technologies</i> , 2022, 7, 2100908.	5.8	15
38	High-Efficiency Perovskite Solar Cells with Imidazolium-Based Ionic Liquid for Surface Passivation and Charge Transport. <i>Angewandte Chemie</i> , 2021, 133, 4284-4290.	2.0	14
39	Superior texture-controlled ZnO thin film using electrochemical deposition. <i>Solar Energy</i> , 2016, 125, 192-197.	6.1	12
40	Highly stable and efficient perovskite solar cells produced via high-boiling point solvents and additive engineering synergistically. <i>Science China Chemistry</i> , 2020, 63, 818-826.	8.2	11
41	Ge quantum-dot enhanced c-Si solar cell for improved light trapping efficiency. <i>Solar Energy</i> , 2018, 167, 102-107.	6.1	10
42	Cd-Doped Triple-Cation Perovskite Thin Films with a 20 ns Carrier Lifetime. <i>Journal of Physical Chemistry C</i> , 2020, 124, 22011-22018.	3.1	10
43	Effective surface passivation with 4-bromo-benzonitrile to enhance the performance of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2021, 9, 17089-17098.	5.5	7
44	Ge quantum dot enhanced hydrogenated amorphous silicon germanium solar cells on flexible stainless steel substrate. <i>Solar Energy</i> , 2017, 144, 635-642.	6.1	6
45	High-Performance Inverted Perovskite Solar Cells by Reducing Electron Capture Region for Electron Transport Layers. <i>Solar Rrl</i> , 2019, 3, 1900207.	5.8	6
46	Perovskite Wafers: Thickness and Shape-Controlled Growth for Ultrathin Single-Crystalline Perovskite Wafers for Mass Production of Superior Photoelectronic Devices (<i>Adv. Mater.</i> 41/2016). <i>Advanced Materials</i> , 2016, 28, 9203-9203.	21.0	3
47	Synergistically Enhanced Amplified Spontaneous Emission by Cd Doping and Cl-Assisted Crystallization. <i>Advanced Optical Materials</i> , 2021, 9, 2001825.	7.3	2