

# Xiaodong Ren

## List of Publications by Year in descending order

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47  
papers

6,384  
citations

159585

30  
h-index

214800

47  
g-index

47  
all docs

47  
docs citations

47  
times ranked

7516  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ion Accumulation-Induced Charge Tunneling for High Gain Factor in $\text{Pb}(\text{In})_{2-x}\text{Na}_x\text{S}$ Structured Perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ X-Ray Detector. <i>Advanced Materials Technologies</i> , 2022, 7, 2100908.	5.8	15
2	Highly Efficient and Stable $\text{CsPbTh}_3$ (Th = I, Br, Cl) Perovskite Solar Cells by Combinational Passivation Strategy. <i>Advanced Science</i> , 2022, 9, e2105103.	11.2	20
3	Ionic Liquid Treatment for Highest Efficiency Ambient Printed Stable All-Inorganic $\text{CsPbI}_3$ Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2106750.	21.0	97
4	Proton-Induced in situ defect passivation for highly efficient wide-bandgap inverted perovskite solar cells. <i>Informa Mater</i> , 2022, 4, .	17.3	27
5	Ligand-Anchoring-Induced Oriented Crystal Growth for High Efficiency Lead-Free Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	38
6	High Efficiency Perovskite Solar Cells with Imidazolium-Based Ionic Liquid for Surface Passivation and Charge Transport. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 4238-4244.	13.8	221
7	Synergistically Enhanced Amplified Spontaneous Emission by Cd Doping and Cl-Assisted Crystallization. <i>Advanced Optical Materials</i> , 2021, 9, 2001825.	7.3	2
8	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
9	Triple-Cation and Mixed-Halide Perovskite Single Crystal for High Performance X-Ray Imaging. <i>Advanced Materials</i> , 2021, 33, e2006010.	21.0	163
10	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
11	Film Formation Control for High Performance Dion-Jacobson 2D Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2002733.	19.5	62
12	40.1% Record Low-Light Solar Cell Efficiency by Holistic Trap Passivation using Micrometer-Thick Perovskite Film. <i>Advanced Materials</i> , 2021, 33, e2100770.	21.0	110
13	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
14	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
15	27% Efficiency Four-Terminal Perovskite/Silicon Tandem Solar Cells by Sandwiched Gold Nanomesh. <i>Advanced Functional Materials</i> , 2020, 30, 1908298.	14.9	91
16	Chlorine-Modified $\text{SnO}_2$ electron transport layer for high efficiency perovskite solar cells. <i>Informa Mater</i> , 2020, 2, 401-408.	17.3	48
17	High-Pressure Nitrogen-Extraction and Effective Passivation to Attain Highest Large-Area Perovskite Solar Module Efficiency. <i>Advanced Materials</i> , 2020, 32, e2004979.	21.0	145
18	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

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19	Efficient perovskite solar cells <i>via</i> surface passivation by a multifunctional small organic ionic compound. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8313-8322.	10.3	68
20	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
21	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
22	Chemical Bath Deposition of Co-Doped TiO <sub>2</sub> Electron Transport Layer for Hysteresis-Suppressed High-Efficiency Planar Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900176.	5.8	36
23	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
24	Ge quantum-dot enhanced c-Si solar cell for improved light trapping efficiency. <i>Solar Energy</i> , 2018, 167, 102-107.	6.1	10
25	Antisolvent with an Ultrawide Processing Window for the One-Step Fabrication of Efficient and Large-Area Perovskite Solar Cells. <i>Advanced Materials</i> , 2018, 30, e1802763.	21.0	130
26	High efficiency planar-type perovskite solar cells with negligible hysteresis using EDTA-complexed SnO <sub>2</sub> . <i>Nature Communications</i> , 2018, 9, 3239.	12.8	1,017
27	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
28	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
29	Stable High-Performance Flexible Photodetector Based on Upconversion Nanoparticles/Perovskite Microarrays Composite. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 19176-19183.	8.0	70
30	Solution-Processed Nb:SnO <sub>2</sub> Electron Transport Layer for Efficient Planar Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 2421-2429.	8.0	315
31	CO <sub>2</sub> Plasma-Treated TiO <sub>2</sub> Film as an Effective Electron Transport Layer for High-Performance Planar Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 33989-33996.	8.0	35
32	120 mm single-crystalline perovskite and wafers: towards viable applications. <i>Science China Chemistry</i> , 2017, 60, 1367-1376.	8.2	107
33	Stable high efficiency two-dimensional perovskite solar cells via cesium doping. <i>Energy and Environmental Science</i> , 2017, 10, 2095-2102.	30.8	588
34	20-mm Large Single-Crystalline Formamidinium Perovskite Wafer for Mass Production of Integrated Photodetectors. <i>Advanced Optical Materials</i> , 2016, 4, 1829-1837.	7.3	316
35	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
36	Improved PEDOT:PSS/c-Si hybrid solar cell using inverted structure and effective passivation. <i>Scientific Reports</i> , 2016, 6, 35091.	3.3	60

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37	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
38	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
39	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
40	Modulating crystal grain size and optoelectronic properties of perovskite films for solar cells by reaction temperature. Nanoscale, 2016, 8, 3816-3822.	5.6	179
41	Superior texture-controlled ZnO thin film using electrochemical deposition. Solar Energy, 2016, 125, 192-197.	6.1	12
42	Color-Tuned Perovskite Films Prepared for Efficient Solar Cell Applications. Journal of Physical Chemistry C, 2016, 120, 42-47.	3.1	106
43	Ag nanoparticle enhanced light trapping in hydrogenated amorphous silicon germanium solar cells on flexible stainless steel substrate. Solar Energy Materials and Solar Cells, 2016, 144, 63-67.	6.2	22
44	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
45	One-step hydrothermal synthesis of monolayer $\text{MoS}_2$ quantum dots for highly efficient electrocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2015, 3, 10693-10697.	10.3	320
46	Topology and texture controlled ZnO thin film electrodeposition for superior solar cell efficiency. Solar Energy Materials and Solar Cells, 2015, 134, 54-59.	6.2	40
47	Revisiting an important component of plant genomes: microsatellites. Functional Plant Biology, 2013, 40, 645.	2.1	29