Xun Xiao

List of Publications by Year
in descending order

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34 papers	5,933 citations	159358 30 h-index	360668 35 g-index
36 all docs	36 docs citations	36 times ranked	5738 citing authors

#	Article	IF	Citations
1	Sustainable development of perovskite solar cells: keeping a balance between toxicity and efficiency. Journal of Materials Chemistry A, 2022, 10, 8159-8171.	5.2	19
2	Gradient Doping in Snâ€"Pb Perovskites by Barium Ions for Efficient Singleâ€Junction and Tandem Solar Cells. Advanced Materials, 2022, 34, e2110351.	11.1	62
3	Wireless implantable optical probe for continuous monitoring of oxygen saturation in flaps and organ grafts. Nature Communications, 2022, 13, .	5.8	22
4	Defect engineering in wide-bandgap perovskites for efficient perovskiteâ€"silicon tandem solar cells. Nature Photonics, 2022, 16, 588-594.	15.6	112
5	Crystallization in one-step solution deposition of perovskite films: Upward or downward?. Science Advances, 2021, 7, .	4.7	165
6	Metallic surface doping of metal halide perovskites. Nature Communications, 2021, 12, 7.	5.8	66
7	Layer number dependent ferroelasticity in 2D Ruddlesdenâ€"Popper organic-inorganic hybrid perovskites. Nature Communications, 2021, 12, 1332.	5.8	28
8	Preventing lead leakage with built-in resin layers for sustainable perovskite solar cells. Nature Sustainability, 2021, 4, 636-643.	11.5	111
9	Ligand assisted growth of perovskite single crystals with low defect density. Nature Communications, 2021, 12, 1686.	5.8	110
10	Iodine reduction for reproducible and high-performance perovskite solar cells and modules. Science Advances, 2021, 7, .	4.7	158
11	Defect compensation in formamidiniumâ€"caesium perovskites for highly efficient solar mini-modules with improved photostability. Nature Energy, 2021, 6, 633-641.	19.8	215
12	Highly Efficient Pureâ€Blue Lightâ€Emitting Diodes Based on Rubidium and Chlorine Alloyed Metal Halide Perovskite. Advanced Materials, 2021, 33, e2100783.	11.1	77
13	Strain engineering in metal halide perovskite materials and devices: Influence on stability and optoelectronic properties. Chemical Physics Reviews, 2021, 2, .	2.6	23
14	Heterojunction structures for reduced noise in large-area and sensitive perovskite x-ray detectors. Science Advances, 2021, 7, eabg6716.	4.7	77
15	Large-area and efficient perovskite light-emitting diodes via low-temperature blade-coating. Nature Communications, 2021, 12, 147.	5.8	100
16	Recycling lead and transparent conductors from perovskite solar modules. Nature Communications, 2021, 12, 5859.	5.8	69
17	Lead-adsorbing ionogel-based encapsulation for impact-resistant, stable, and lead-safe perovskite modules. Science Advances, 2021, 7, eabi8249.	4.7	71
18	Scalable Fabrication of Efficient Perovskite Solar Modules on Flexible Glass Substrates. Advanced Energy Materials, 2020, 10, 1903108.	10.2	186

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19	Ultrafast Exciton Transport with a Long Diffusion Length in Layered Perovskites with Organic Cation Functionalization. Advanced Materials, 2020, 32, e2004080.	11.1	34
20	Identifying the Soft Nature of Defective Perovskite Surface Layer and Its Removal Using a Facile Mechanical Approach. Joule, 2020, 4, 2661-2674.	11.7	81
21	Reduced Self-Doping of Perovskites Induced by Short Annealing for Efficient Solar Modules. Joule, 2020, 4, 1949-1960.	11.7	72
22	Perovskite-filled membranes for flexible and large-area direct-conversion X-ray detector arrays. Nature Photonics, 2020, 14, 612-617.	15.6	228
23	Benign ferroelastic twin boundaries in halide perovskites for charge carrier transport and recombination. Nature Communications, 2020, 11, 2215.	5.8	47
24	Stabilizing halide perovskite surfaces for solar cell operation with wide-bandgap lead oxysalts. Science, 2019, 365, 473-478.	6.0	723
25	Enhancing electron diffusion length in narrow-bandgap perovskites for efficient monolithic perovskite tandem solar cells. Nature Communications, 2019, 10, 4498.	5.8	234
26	Tailoring Passivation Molecular Structures for Extremely Small Open-Circuit Voltage Loss in Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 5781-5787.	6.6	585
27	Synthetic control over orientational degeneracy of spacer cations enhances solar cell efficiency in two-dimensional perovskites. Nature Communications, 2019, 10, 1276.	5.8	222
28	Bilateral alkylamine for suppressing charge recombination and improving stability in blade-coated perovskite solar cells. Science Advances, 2019, 5, eaav8925.	4.7	388
29	Efficient sky-blue perovskite light-emitting diodes via photoluminescence enhancement. Nature Communications, 2019, 10, 5633.	5.8	267
30	Suppressed Ion Migration along the In-Plane Direction in Layered Perovskites. ACS Energy Letters, 2018, 3, 684-688.	8.8	240
31	Argon Plasma Treatment to Tune Perovskite Surface Composition for High Efficiency Solar Cells and Fast Photodetectors. Advanced Materials, 2018, 30, 1705176.	11.1	81
32	Dual Functions of Crystallization Control and Defect Passivation Enabled by Sulfonic Zwitterions for Stable and Efficient Perovskite Solar Cells. Advanced Materials, 2018, 30, e1803428.	11.1	296
33	Lowâ€Noise and Largeâ€Linearâ€Dynamicâ€Range Photodetectors Based on Hybridâ€Perovskite Thinâ€Singleâ€Crystals. Advanced Materials, 2017, 29, 1703209.	11.1	281
34	Thin single crystal perovskite solar cells to harvest below-bandgap light absorption. Nature Communications, 2017, 8, 1890.	5.8	467