

Xun Xiao

List of Publications by Year in descending order

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34
papers

5,933
citations

159585

30
h-index

361022

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.	10.3	19
2	Gradient Doping in Sn-Pb Perovskites by Barium Ions for Efficient Single-Junction and Tandem Solar Cells. Advanced Materials, 2022, 34, e2110351.	21.0	62
3	Wireless implantable optical probe for continuous monitoring of oxygen saturation in flaps and organ grafts. Nature Communications, 2022, 13, .	12.8	22
4	Defect engineering in wide-bandgap perovskites for efficient perovskite-silicon tandem solar cells. Nature Photonics, 2022, 16, 588-594.	31.4	112
5	Crystallization in one-step solution deposition of perovskite films: Upward or downward?. Science Advances, 2021, 7, .	10.3	165
6	Metallic surface doping of metal halide perovskites. Nature Communications, 2021, 12, 7.	12.8	66
7	Layer number dependent ferroelasticity in 2D Ruddlesden-Popper organic-inorganic hybrid perovskites. Nature Communications, 2021, 12, 1332.	12.8	28
8	Preventing lead leakage with built-in resin layers for sustainable perovskite solar cells. Nature Sustainability, 2021, 4, 636-643.	23.7	111
9	Ligand assisted growth of perovskite single crystals with low defect density. Nature Communications, 2021, 12, 1686.	12.8	110
10	Iodine reduction for reproducible and high-performance perovskite solar cells and modules. Science Advances, 2021, 7, .	10.3	158
11	Defect compensation in formamidinium-caesium perovskites for highly efficient solar mini-modules with improved photostability. Nature Energy, 2021, 6, 633-641.	39.5	215
12	Highly Efficient Pure-Blue Light-Emitting Diodes Based on Rubidium and Chlorine Alloyed Metal Halide Perovskite. Advanced Materials, 2021, 33, e2100783.	21.0	77
13	Strain engineering in metal halide perovskite materials and devices: Influence on stability and optoelectronic properties. Chemical Physics Reviews, 2021, 2, .	5.7	23
14	Heterojunction structures for reduced noise in large-area and sensitive perovskite x-ray detectors. Science Advances, 2021, 7, eabg6716.	10.3	77
15	Large-area and efficient perovskite light-emitting diodes via low-temperature blade-coating. Nature Communications, 2021, 12, 147.	12.8	100
16	Recycling lead and transparent conductors from perovskite solar modules. Nature Communications, 2021, 12, 5859.	12.8	69
17	Lead-adsorbing ionogel-based encapsulation for impact-resistant, stable, and lead-safe perovskite modules. Science Advances, 2021, 7, eabi8249.	10.3	71
18	Scalable Fabrication of Efficient Perovskite Solar Modules on Flexible Glass Substrates. Advanced Energy Materials, 2020, 10, 1903108.	19.5	186

#	ARTICLE	IF	CITATIONS
19	Ultrafast Exciton Transport with a Long Diffusion Length in Layered Perovskites with Organic Cation Functionalization. <i>Advanced Materials</i> , 2020, 32, e2004080.	21.0	34
20	Identifying the Soft Nature of Defective Perovskite Surface Layer and Its Removal Using a Facile Mechanical Approach. <i>Joule</i> , 2020, 4, 2661-2674.	24.0	81
21	Reduced Self-Doping of Perovskites Induced by Short Annealing for Efficient Solar Modules. <i>Joule</i> , 2020, 4, 1949-1960.	24.0	72
22	Perovskite-filled membranes for flexible and large-area direct-conversion X-ray detector arrays. <i>Nature Photonics</i> , 2020, 14, 612-617.	31.4	228
23	Benign ferroelastic twin boundaries in halide perovskites for charge carrier transport and recombination. <i>Nature Communications</i> , 2020, 11, 2215.	12.8	47
24	Stabilizing halide perovskite surfaces for solar cell operation with wide-bandgap lead oxysalts. <i>Science</i> , 2019, 365, 473-478.	12.6	723
25	Enhancing electron diffusion length in narrow-bandgap perovskites for efficient monolithic perovskite tandem solar cells. <i>Nature Communications</i> , 2019, 10, 4498.	12.8	234
26	Tailoring Passivation Molecular Structures for Extremely Small Open-Circuit Voltage Loss in Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2019, 141, 5781-5787.	13.7	585
27	Synthetic control over orientational degeneracy of spacer cations enhances solar cell efficiency in two-dimensional perovskites. <i>Nature Communications</i> , 2019, 10, 1276.	12.8	222
28	Bilateral alkylamine for suppressing charge recombination and improving stability in blade-coated perovskite solar cells. <i>Science Advances</i> , 2019, 5, eaav8925.	10.3	388
29	Efficient sky-blue perovskite light-emitting diodes via photoluminescence enhancement. <i>Nature Communications</i> , 2019, 10, 5633.	12.8	267
30	Suppressed Ion Migration along the In-Plane Direction in Layered Perovskites. <i>ACS Energy Letters</i> , 2018, 3, 684-688.	17.4	240
31	Argon Plasma Treatment to Tune Perovskite Surface Composition for High Efficiency Solar Cells and Fast Photodetectors. <i>Advanced Materials</i> , 2018, 30, 1705176.	21.0	81
32	Dual Functions of Crystallization Control and Defect Passivation Enabled by Sulfonic Zwitterions for Stable and Efficient Perovskite Solar Cells. <i>Advanced Materials</i> , 2018, 30, e1803428.	21.0	296
33	Low-Noise and Large-Linear-Dynamic-Range Photodetectors Based on Hybrid-Perovskite Thin-Single-Crystals. <i>Advanced Materials</i> , 2017, 29, 1703209.	21.0	281
34	Thin single crystal perovskite solar cells to harvest below-bandgap light absorption. <i>Nature Communications</i> , 2017, 8, 1890.	12.8	467