Weijun Ke

List of Publications by Year
in descending order

64 papers	10,846 citations	41344 49 h-index	114465 63 g-index
65 all docs	65 docs citations	65 times ranked	9625 citing authors

#	Article	IF	Citations
1	Low-Temperature Solution-Processed Tin Oxide as an Alternative Electron Transporting Layer for Efficient Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 6730-6733.	13.7	1,045
2	Prospects for low-toxicity lead-free perovskite solar cells. Nature Communications, 2019, 10, 965.	12.8	695
3	Hybrid Dionâ€“Jacobson 2D Lead Iodide Perovskites. Journal of the American Chemical Society, 2018, 140, 3775-3783.	13.7	686
4	Employing Lead Thiocyanate Additive to Reduce the Hysteresis and Boost the Fill Factor of Planar Perovskite Solar Cells. Advanced Materials, 2016, 28, 5214-5221.	21.0	487
5	Recent progress in electron transport layers for efficient perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 3970-3990.	10.3	472
6	Efficient hole-blocking layer-free planar halide perovskite thin-film solar cells. Nature Communications, 2015, 6, 6700.	12.8	358
7	â€œUnleadedâ€•Perovskites: Status Quo and Future Prospects of Tinâ€Based Perovskite Solar Cells. Advanced Materials, 2019, 31, e1803230.	21.0	345
8	Effective Carrierâ€Concentration Tuning of SnO₂ Quantum Dot Electronâ€Selective Layers for Highâ€Performance Planar Perovskite Solar Cells. Advanced Materials, 2018, 30, e1706023.	21.0	333
9	Enhanced photovoltaic performance and stability with a new type of hollow 3D perovskite {en}FASnI ₃. Science Advances, 2017, 3, e1701293.	10.3	325
10	Perovskite Solar Cell with an Efficient TiO₂ Compact Film. ACS Applied Materials & Interfaces, 2014, 6, 15959-15965.	8.0	300
11	Two-Dimensional Dionâ€“Jacobson Hybrid Lead Iodide Perovskites with Aromatic Diammonium Cations. Journal of the American Chemical Society, 2019, 141, 12880-12890.	13.7	241
12	Myths and reality of HPbI3 in halide perovskite solar cells. Nature Communications, 2018, 9, 4785.	12.8	238
13	Efficient Lead-Free Solar Cells Based on Hollow {en}MASnI₃ Perovskites. Journal of the American Chemical Society, 2017, 139, 14800-14806.	13.7	230
14	TiO₂â€“ZnS Cascade Electron Transport Layer for Efficient Formamidinium Tin Iodide Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 14998-15003.	13.7	220
15	Compositional and Solvent Engineering in Dionâ€“Jacobson 2D Perovskites Boosts Solar Cell Efficiency and Stability. Advanced Energy Materials, 2019, 9, 1803384.	19.5	219
16	CsPbBr3 perovskite detectors with 1.4% energy resolution for high-energy Î³-rays. Nature Photonics, 2021, 15, 36-42.	31.4	210
17	Cooperative tin oxide fullerene electron selective layers for high-performance planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 14276-14283.	10.3	204
18	Uniaxial Expansion of the 2D Ruddlesdenâ€“Popper Perovskite Family for Improved Environmental Stability. Journal of the American Chemical Society, 2019, 141, 5518-5534.	13.7	193

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19	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
20	Effects of annealing temperature of tin oxide electron selective layers on the performance of perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 24163-24168.	10.3	186
21	In situ growth of double-layer MoO3/MoS2 film from MoS2 for hole-transport layers in organic solar cell. Journal of Materials Chemistry A, 2014, 2, 2742.	10.3	184
22	Two-Dimensional Halide Perovskites Incorporating Straight Chain Symmetric Diammonium Ions, (NH₃C_{<i>m</i>}H_{2<i>m</i>}NH₃)(CH₃NH₃)<sub><i>n</i (<i>m</i> = 4â€“9; <i>n</i> = 1â€“4). Journal of the American Chemical Society, 2018, 140, 12226-12238.	13.7	184
23	Reducing Hysteresis and Enhancing Performance of Perovskite Solar Cells Using Lowâ€Temperature Processed Yâ€Doped SnO₂ Nanosheets as Electron Selective Layers. Small, 2017, 13, 1601769.	10.0	183
24	Dopant-Free Tetrakis-Triphenylamine Hole Transporting Material for Efficient Tin-Based Perovskite Solar Cells. Journal of the American Chemical Society, 2018, 140, 388-393.	13.7	163
25	Tripleâ€Cation and Mixedâ€Halide Perovskite Single Crystal for Highâ€Performance Xâ€ray Imaging. Advanced Materials, 2021, 33, e2006010.	21.0	163
26	Efficient fully-vacuum-processed perovskite solar cells using copper phthalocyanine as hole selective layers. Journal of Materials Chemistry A, 2015, 3, 23888-23894.	10.3	161
27	Performance enhancement of high temperature SnO₂-based planar perovskite solar cells: electrical characterization and understanding of the mechanism. Journal of Materials Chemistry A, 2016, 4, 8374-8383.	10.3	156
28	Photovoltaic Properties of Two-Dimensional (CH₃NH₃)₂Pb(SCN)₂I₂ Perovskite: A Combined Experimental and Density Functional Theory Study. Journal of Physical Chemistry Letters, 2016, 7, 1213-1218.	4.6	135
29	Unraveling the Chemical Nature of the 3D â€œHollowâ€• Hybrid Halide Perovskites. Journal of the American Chemical Society, 2018, 140, 5728-5742.	13.7	132
30	Perovskite Solar Cells Based on Low-Temperature Processed Indium Oxide Electron Selective Layers. ACS Applied Materials & Interfaces, 2016, 8, 8460-8466.	8.0	128
31	Conventional Solvent Oxidizes Sn(II) in Perovskite Inks. ACS Energy Letters, 2020, 5, 1153-1155.	17.4	127
32	Annealing-free efficient vacuum-deposited planar perovskite solar cells with evaporated fullerenes as electron-selective layers. Nano Energy, 2016, 19, 88-97.	16.0	125
33	Combustion Synthesized Zinc Oxide Electronâ€Transport Layers for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900265.	14.9	121
34	Improved Environmental Stability and Solar Cell Efficiency of (MA,FA)PbI₃ Perovskite Using a Wide-Band-Gap 1D Thiazolium Lead Iodide Capping Layer Strategy. ACS Energy Letters, 2019, 4, 1763-1769.	17.4	118
35	Diammonium Cations in the FASnI₃ Perovskite Structure Lead to Lower Dark Currents and More Efficient Solar Cells. ACS Energy Letters, 2018, 3, 1470-1476.	17.4	114
36	Narrow-Bandgap Mixed Lead/Tin-Based 2D Dionâ€“Jacobson Perovskites Boost the Performance of Solar Cells. Journal of the American Chemical Society, 2020, 142, 15049-15057.	13.7	103

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37	Efficient planar perovskite solar cells using room-temperature vacuum-processed C₆₀ electron selective layers. Journal of Materials Chemistry A, 2015, 3, 17971-17976.	10.3	100
38	Resolving the Energy of Î³-Ray Photons with MAPbI₃ Single Crystals. ACS Photonics, 2018, 5, 4132-4138.	6.6	100
39	In Situ Synthesis of NiS Nanowall Networks on Ni Foam as a TCO-Free Counter Electrode for Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 5525-5530.	8.0	96
40	Ethylenediammonium-Based â€œHollowâ€• Pb/Sn Perovskites with Ideal Band Gap Yield Solar Cells with Higher Efficiency and Stability. Journal of the American Chemical Society, 2019, 141, 8627-8637.	13.7	93
41	Three-Dimensional Lead Iodide Perovskitoid Hybrids with High X-ray Photoresponse. Journal of the American Chemical Society, 2020, 142, 6625-6637.	13.7	82
42	Inch-sized high-quality perovskite single crystals by suppressing phase segregation for light-powered integrated circuits. Science Advances, 2021, 7, .	10.3	81
43	Seven-Layered 2D Hybrid Lead Iodide Perovskites. CheM, 2019, 5, 2593-2604.	11.7	79
44	Highly Efficient and Stable Planar Perovskite Solar Cells With Largeâ€Scale Manufacture of Eâ€Beam Evaporated SnO₂ Toward Commercialization. Solar Rrl, 2017, 1, 1700118.	5.8	75
45	Interfacial engineering of a thiophene-based 2D/3D perovskite heterojunction for efficient and stable inverted wide-bandgap perovskite solar cells. Nano Energy, 2021, 90, 106608.	16.0	71
46	Graphene-Modified Tin Dioxide for Efficient Planar Perovskite Solar Cells with Enhanced Electron Extraction and Reduced Hysteresis. ACS Applied Materials & Interfaces, 2019, 11, 666-673.	8.0	66
47	Internal Encapsulation for Lead Halide Perovskite Films for Efficient and Very Stable Solar Cells. Advanced Energy Materials, 2022, 12, .	19.5	59
48	Water-Stable 1D Hybrid Tin(II) Iodide Emits Broad Light with 36% Photoluminescence Quantum Efficiency. Journal of the American Chemical Society, 2020, 142, 9028-9038.	13.7	57
49	Junction Quality of SnO₂-Based Perovskite Solar Cells Investigated by Nanometer-Scale Electrical Potential Profiling. ACS Applied Materials & Interfaces, 2017, 9, 38373-38380.	8.0	56
50	Modern Processing and Insights on Selenium Solar Cells: The World's First Photovoltaic Device. Advanced Energy Materials, 2019, 9, 1802766.	19.5	53
51	Benzodithiophene Holeâ€Transporting Materials for Efficient Tinâ€Based Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1905393.	14.9	49
52	Millisecond-pulsed photonically-annealed tin oxide electron transport layers for efficient perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24110-24115.	10.3	41
53	Improved Performance of Electroplated CZTS Thinâ€Film Solar Cells with Bifacial Configuration. ChemSusChem, 2016, 9, 2149-2158.	6.8	40
54	Tunable Broad Light Emission from 3D â€œHollowâ€• Bromide Perovskites through Defect Engineering. Journal of the American Chemical Society, 2021, 143, 7069-7080.	13.7	37

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55	2,3-Diphenylthieno[3,4-<i>b</i>]pyrazines as Hole-Transporting Materials for Stable, High-Performance Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 2118-2127.	17.4	27
56	Revealing key factors of efficient narrow-bandgap mixed lead-tin perovskite solar cells via numerical simulations and experiments. Nano Energy, 2022, 96, 107078.	16.0	21
57	Film formation mechanisms in mixed-dimensional 2D/3D halide perovskite films revealed by in situ grazing-incidence wide-angle X-ray scattering. CheM, 2022, 8, 1067-1082.	11.7	16
58	In Quest of Environmentally Stable Perovskite Solar Cells: A Perspective. Helvetica Chimica Acta, 2021, 104, .	1.6	15
59	Low-temperature synthesis of size-controllable anatase TiO2 microspheres and interface optimization of bi-layer anodes for high efficiency dye sensitized solar cells. Electrochimica Acta, 2014, 137, 17-25.	5.2	14
60	Highly Efficient Quasiâ€2D Green Perovskite Lightâ€Emitting Diodes with Bifunctional Amino Acid. Advanced Optical Materials, 2022, 10, .	7.3	14
61	Selective Capture Mechanism of Radioactive Thorium from Highly Acidic Solution by a Layered Metal Sulfide. ACS Applied Materials & Interfaces, 2021, 13, 37308-37315.	8.0	11
62	Revealing the Mechanism of Ï€ Aromatic Molecule as an Effective Passivator and Stabilizer in Highly Efficient Wideâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100249.	5.8	11
63	Organic-inorganic hybrid hole transport layers with SnS doping boost the performance of perovskite solar cells. Journal of Energy Chemistry, 2022, 68, 637-645.	12.9	9
64	Optical properties and degradation monitoring of CH<inf>3</inf>NH<inf>3</inf>PbI<inf>3</inf>. , 2016, , .		0