Jinsong Huang

List of Publications by Year
in descending order

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250	68,038	699 121	871 243
papers	citations	h-index	g-index

262	262	262	31130
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-efficiency solution processable polymer photovoltaic cells by self-organization of polymer blends. Nature Materials, 2005, 4, 864-868.	13.3	5,281
2	Electron-hole diffusion lengths > 175 Î¼m in solution-grown CH ₃ NH ₃ PbI ₃ single crystals. Science, 2015, 347, 967-970.	6.0	4,642
3	Origin and elimination of photocurrent hysteresis by fullerene passivation in CH3NH3PbI3 planar heterojunction solar cells. Nature Communications, 2014, 5, 5784.	5.8	2,531
4	Defect passivation in hybrid perovskite solar cells using quaternary ammonium halide anions andÂcations. Nature Energy, 2017, 2, .	19.8	1,694
5	Solvent Annealing of Perovskiteâ€Induced Crystal Growth for Photovoltaicâ€Device Efficiency Enhancement. Advanced Materials, 2014, 26, 6503-6509.	11.1	1,527
6	Giant switchable photovoltaic effect in organometal trihalide perovskite devices. Nature Materials, 2015, 14, 193-198.	13.3	1,372
7	Ion Migration in Organometal Trihalide Perovskite and Its Impact on Photovoltaic Efficiency and Stability. Accounts of Chemical Research, 2016, 49, 286-293.	7.6	1,343
8	Non-wetting surface-driven high-aspect-ratio crystalline grain growth for efficient hybrid perovskite solar cells. Nature Communications, 2015, 6, 7747.	5.8	1,336
9	Sensitive X-ray detectors made of methylammonium lead tribromide perovskite single crystals. Nature Photonics, 2016, 10, 333-339.	15.6	1,271
10	Imperfections and their passivation in halide perovskite solar cells. Chemical Society Reviews, 2019, 48, 3842-3867.	18.7	1,257
11	Highly narrowband perovskite single-crystal photodetectors enabled by surface-charge recombination. Nature Photonics, 2015, 9, 679-686.	15.6	1,201
12	Ultra-high mobility transparent organic thin film transistors grown by an off-centre spin-coating method. Nature Communications, 2014, 5, 3005.	5.8	1,155
13	Efficient, high yield perovskite photovoltaic devices grown by interdiffusion of solution-processed precursor stacking layers. Energy and Environmental Science, 2014, 7, 2619-2623.	15.6	1,154
14	Rational molecular passivation for high-performance perovskite light-emitting diodes. Nature Photonics, 2019, 13, 418-424.	15.6	970
15	Understanding the physical properties of hybrid perovskites for photovoltaic applications. Nature Reviews Materials, 2017, 2, .	23.3	927
16	Grain boundary dominated ion migration in polycrystalline organicâ€“inorganic halide perovskite films. Energy and Environmental Science, 2016, 9, 1752-1759.	15.6	917
17	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. Nature Energy, 2020, 5, 131-140.	19.8	894
18	Large fill-factor bilayer iodine perovskite solar cells fabricated by a low-temperature solution-process. Energy and Environmental Science, 2014, 7, 2359-2365.	15.6	754

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19	Stabilizing halide perovskite surfaces for solar cell operation with wide-bandgap lead oxysalts. Science, 2019, 365, 473-478.	6.0	723
20	Scaling behavior of moisture-induced grain degradation in polycrystalline hybrid perovskite thin films. Energy and Environmental Science, 2017, 10, 516-522.	15.6	720
21	Resolving spatial and energetic distributions of trap states in metal halide perovskite solar cells. Science, 2020, 367, 1352-1358.	6.0	699
22	Correlation of energy disorder and open-circuit voltage in hybrid perovskite solar cells. Nature Energy, 2016, 1, .	19.8	646
23	Strained hybrid perovskite thin films and their impact on the intrinsic stability of perovskite solar cells. Science Advances, 2017, 3, eaao5616.	4.7	635
24	A nanocomposite ultraviolet photodetector based on interfacial trap-controlled charge injection. Nature Nanotechnology, 2012, 7, 798-802.	15.6	634
25	Scalable fabrication of efficient organolead trihalide perovskite solar cells with doctor-bladed active layers. Energy and Environmental Science, 2015, 8, 1544-1550.	15.6	606
26	Surfactant-controlled ink drying enables high-speed deposition of perovskite films for efficient photovoltaic modules. Nature Energy, 2018, 3, 560-566.	19.8	585
27	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
28	Monolithic integration of hybrid perovskite single crystals with heterogenous substrate for highly sensitive X-ray imaging. Nature Photonics, 2017, 11, 315-321.	15.6	580
29	Halide lead perovskites for ionizing radiation detection. Nature Communications, 2019, 10, 1066.	5.8	568
30	Photovoltaic Switching Mechanism in Lateral Structure Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1500615.	10.2	567
31	Highâ€Gain and Lowâ€Drivingâ€Voltage Photodetectors Based on Organolead Triiodide Perovskites. Advanced Materials, 2015, 27, 1912-1918.	11.1	560
32	Ï€â€Conjugated Lewis Base: Efficient Trapâ€Passivation and Chargeâ€Extraction for Hybrid Perovskite Solar Cells. Advanced Materials, 2017, 29, 1604545.	11.1	543
33	Thin Insulating Tunneling Contacts for Efficient and Waterâ€Resistant Perovskite Solar Cells. Advanced Materials, 2016, 28, 6734-6739.	11.1	533
34	Qualifying composition dependent p and n self-doping in CH3NH3PbI3. Applied Physics Letters, 2014, 105, .	1.5	518
35	Efficiency enhancement in organic solar cells with ferroelectric polymers. Nature Materials, 2011, 10, 296-302.	13.3	482
36	Advances in Perovskite Solar Cells. Advanced Science, 2016, 3, 1500324.	5.6	482

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37	Resolving Weak Light of Subâ€picowatt per Square Centimeter by Hybrid Perovskite Photodetectors Enabled by Noise Reduction. Advanced Materials, 2015, 27, 2804-2810.	11.1	481
38	Dopant compensation in alloyed CH3NH3PbBr3â^'xClx perovskite single crystals for gamma-ray spectroscopy. Nature Materials, 2017, 16, 826-833.	13.3	475
39	Thin single crystal perovskite solar cells to harvest below-bandgap light absorption. Nature Communications, 2017, 8, 1890.	5.8	467
40	Enhanced Thermal Stability in Perovskite Solar Cells by Assembling 2D/3D Stacking Structures. Journal of Physical Chemistry Letters, 2018, 9, 654-658.	2.1	447
41	Stabilizing the Î±-Phase of CsPbI3 Perovskite by Sulfobetaine Zwitterions in One-Step Spin-Coating Films. Joule, 2017, 1, 371-382.	11.7	442
42	Accurate characterization of next-generation thin-film photodetectors. Nature Photonics, 2019, 13, 1-4.	15.6	436
43	Novel Nanostructured Paper with Ultrahigh Transparency and Ultrahigh Haze for Solar Cells. Nano Letters, 2014, 14, 765-773.	4.5	419
44	Arising applications of ferroelectric materials in photovoltaic devices. Journal of Materials Chemistry A, 2014, 2, 6027-6041.	5.2	408
45	Suppressed Ion Migration in Low-Dimensional Perovskites. ACS Energy Letters, 2017, 2, 1571-1572.	8.8	404
46	Stabilizing perovskite-substrate interfaces for high-performance perovskite modules. Science, 2021, 373, 902-907.	6.0	402
47	Bilateral alkylamine for suppressing charge recombination and improving stability in blade-coated perovskite solar cells. Science Advances, 2019, 5, eaav8925.	4.7	388
48	Meniscus-assisted solution printing of large-grained perovskite films for high-efficiency solar cells. Nature Communications, 2017, 8, 16045.	5.8	359
49	Manipulating regioregular poly(3-hexylthiophene) : [6,6]-phenyl-C61-butyric acid methyl ester blendsâ€"route towards high efficiency polymer solar cells. Journal of Materials Chemistry, 2007, 17, 3126.	6.7	351
50	Enhancing stability and efficiency of perovskite solar cells with crosslinkable silane-functionalized and doped fullerene. Nature Communications, 2016, 7, 12806.	5.8	350
51	High Performance and Stable Allâ€Inorganic Metal Halide Perovskiteâ€Based Photodetectors for Optical Communication Applications. Advanced Materials, 2018, 30, e1803422.	11.1	342
52	Grain Engineering for Perovskite/Silicon Monolithic Tandem Solar Cells with Efficiency of 25.4%. Joule, 2019, 3, 177-190.	11.7	329
53	Energyâ€Efficient Hybrid Perovskite Memristors and Synaptic Devices. Advanced Electronic Materials, 2016, 2, 1600100.	2.6	323
54	Ultrafast ion migration in hybrid perovskite polycrystalline thin films under light and suppression in single crystals. Physical Chemistry Chemical Physics, 2016, 18, 30484-30490.	1.3	322

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55	Molecular doping enabled scalable blading of efficient hole-transport-layer-free perovskite solar cells. Nature Communications, 2018, 9, 1625.	5.8	314
56	Tailoring solvent coordination for high-speed, room-temperature blading of perovskite photovoltaic films. Science Advances, 2019, 5, eaax7537.	4.7	312
57	Ultrahigh sensitivity of methylammonium lead tribromide perovskite single crystals to environmental gases. Science Advances, 2016, 2, e1600534.	4.7	304
58	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
59	A Selfâ€Powered, Subâ€nanosecondâ€Response Solutionâ€Processed Hybrid Perovskite Photodetector for Timeâ€Resolved Photoluminescenceâ€Lifetime Detection. Advanced Materials, 2016, 28, 10794-10800.	11.1	295
60	Electricâ€Fieldâ€Driven Reversible Conversion Between Methylammonium Lead Triiodide Perovskites and Lead Iodide at Elevated Temperatures. Advanced Energy Materials, 2016, 6, 1501803.	10.2	287
61	Biodegradable transparent substrates for flexible organic-light-emitting diodes. Energy and Environmental Science, 2013, 6, 2105.	15.6	281
62	Lowâ€Noise and Largeâ€Linearâ€Dynamicâ€Range Photodetectors Based on Hybridâ€Perovskite Thinâ€Singleâ€Crystals. Advanced Materials, 2017, 29, 1703209.	11.1	281
63	Blade-Coated Perovskites on Textured Silicon for 26%-Efficient Monolithic Perovskite/Silicon Tandem Solar Cells. Joule, 2020, 4, 850-864.	11.7	281
64	Highly Narrowband Photomultiplication Type Organic Photodetectors. Nano Letters, 2017, 17, 1995-2002.	4.5	278
65	Understanding the formation and evolution of interdiffusion grown organolead halide perovskite thin films by thermal annealing. Journal of Materials Chemistry A, 2014, 2, 18508-18514.	5.2	276
66	Airâ€Stable, Efficient Mixedâ€Cation Perovskite Solar Cells with Cu Electrode by Scalable Fabrication of Active Layer. Advanced Energy Materials, 2016, 6, 1600372.	10.2	275
67	Doped hole transport layer for efficiency enhancement in planar heterojunction organolead trihalide perovskite solar cells. Nano Energy, 2015, 15, 275-280.	8.2	268
68	Mixed halide perovskites for spectrally stable and high-efficiency blue light-emitting diodes. Nature Communications, 2021, 12, 361.	5.8	268
69	Efficient sky-blue perovskite light-emitting diodes via photoluminescence enhancement. Nature Communications, 2019, 10, 5633.	5.8	267
70	Light-Induced Degradation of CH₃NH₃PbI₃ Hybrid Perovskite Thin Film. Journal of Physical Chemistry C, 2017, 121, 3904-3910.	1.5	265
71	CH ₃ NH ₃ PbI ₃ perovskites: Ferroelasticity revealed. Science Advances, 2017, 3, e1602165.	4.7	257
72	Abnormal crystal growth in CH₃NH₃PbI_{3â”x}Cl_xusing a multi-cycle solution coating process. Energy and Environmental Science, 2015, 8, 2464-2470.	15.6	240

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73	Efficient Semitransparent Perovskite Solar Cells for 23.0%â€Efficiency Perovskite/Silicon Fourâ€Terminal Tandem Cells. Advanced Energy Materials, 2016, 6, 1601128.	10.2	240
74	Suppressed Ion Migration along the In-Plane Direction in Layered Perovskites. ACS Energy Letters, 2018, 3, 684-688.	8.8	240
75	Is Cu a stable electrode material in hybrid perovskite solar cells for a 30-year lifetime?. Energy and Environmental Science, 2016, 9, 3650-3656.	15.6	239
76	Composition Engineering in Doctorâ€Blading of Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700302.	10.2	239
77	Reducing Surface Halide Deficiency for Efficient and Stable Iodide-Based Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 3989-3996.	6.6	236
78	Enhancing electron diffusion length in narrow-bandgap perovskites for efficient monolithic perovskite tandem solar cells. Nature Communications, 2019, 10, 4498.	5.8	234
79	Stabilized Wide Bandgap MAPbBr_xI_{3â€“x} Perovskite by Enhanced Grain Size and Improved Crystallinity. Advanced Science, 2016, 3, 1500301.	5.6	229
80	Perovskite-filled membranes for flexible and large-area direct-conversion X-ray detector arrays. Nature Photonics, 2020, 14, 612-617.	15.6	228
81	Charge Carrier Lifetimes Exceeding 15 Î¼s in Methylammonium Lead Iodide Single Crystals. Journal of Physical Chemistry Letters, 2016, 7, 923-928.	2.1	226
82	Synthetic control over orientational degeneracy of spacer cations enhances solar cell efficiency in two-dimensional perovskites. Nature Communications, 2019, 10, 1276.	5.8	222
83	Organometal Trihalide Perovskite Single Crystals: A Next Wave of Materials for 25% Efficiency Photovoltaics and Applications Beyond?. Journal of Physical Chemistry Letters, 2015, 6, 3218-3227.	2.1	220
84	The Functions of Fullerenes in Hybrid Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 782-794.	8.8	217
85	Unveiling the operation mechanism of layered perovskite solar cells. Nature Communications, 2019, 10, 1008.	5.8	216
86	Defect compensation in formamidiniumâ€“caesium perovskites for highly efficient solar mini-modules with improved photostability. Nature Energy, 2021, 6, 633-641.	19.8	215
87	Lightâ€Induced Selfâ€Poling Effect on Organometal Trihalide Perovskite Solar Cells for Increased Device Efficiency and Stability. Advanced Energy Materials, 2015, 5, 1500721.	10.2	214
88	Air Stable, Photosensitive, Phase Pure Iron Pyrite Nanocrystal Thin Films for Photovoltaic Application. Nano Letters, 2011, 11, 4953-4957.	4.5	210
89	Control of the nanoscale crystallinity and phase separation in polymer solar cells. Applied Physics Letters, 2008, 92, 103306.	1.5	196
90	Quantification of re-absorption and re-emission processes to determine photon recycling efficiency in perovskite single crystals. Nature Communications, 2017, 8, 14417.	5.8	189

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91	Scalable Fabrication of Efficient Perovskite Solar Modules on Flexible Glass Substrates. Advanced Energy Materials, 2020, 10, 1903108.	10.2	186
92	Simplified interconnection structure based on C60/SnO2-x for all-perovskite tandem solar cells. Nature Energy, 2020, 5, 657-665.	19.8	186
93	Efficient Flexible Solar Cell based on Compositionâ€Tailored Hybrid Perovskite. Advanced Materials, 2017, 29, 1605900.	11.1	184
94	An Ultravioletâ€toâ€NIR Broad Spectral Nanocomposite Photodetector with Gain. Advanced Optical Materials, 2014, 2, 549-554.	3.6	183
95	Matching Charge Extraction Contact for Wideâ€Bandgap Perovskite Solar Cells. Advanced Materials, 2017, 29, 1700607.	11.1	178
96	Low Temperature Solutionâ€Processed Sb:SnO₂ Nanocrystals for Efficient Planar Perovskite Solar Cells. ChemSusChem, 2016, 9, 2686-2691.	3.6	172
97	Vividly colorful hybrid perovskite solar cells by doctor-blade coating with perovskite photonic nanostructures. Materials Horizons, 2015, 2, 578-583.	6.4	167
98	Templated growth of oriented layered hybrid perovskites on 3D-like perovskites. Nature Communications, 2020, 11, 582.	5.8	167
99	Physical aspects of ferroelectric semiconductors for photovoltaic solar energy conversion. Physics Reports, 2016, 653, 1-40.	10.3	166
100	Chloride Incorporation Process in CH₃NH₃PbI_{3â€“x}Cl_x Perovskites via Nanoscale Bandgap Maps. Nano Letters, 2015, 15, 8114-8121.	4.5	165
101	Anomalous photovoltaic effect in organic-inorganic hybrid perovskite solar cells. Science Advances, 2017, 3, e1602164.	4.7	165
102	Crystallization in one-step solution deposition of perovskite films: Upward or downward?. Science Advances, 2021, 7, .	4.7	165
103	Excess charge-carrier induced instability of hybrid perovskites. Nature Communications, 2018, 9, 4981.	5.8	159
104	Iodine reduction for reproducible and high-performance perovskite solar cells and modules. Science Advances, 2021, 7, .	4.7	158
105	Evolution of defects during the degradation of metal halide perovskite solar cells under reverse bias and illumination. Nature Energy, 2022, 7, 65-73.	19.8	158
106	Doping and alloying for improved perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 17623-17635.	5.2	157
107	Interfacial electronic structure at the CH3NH3PbI3/MoOx interface. Applied Physics Letters, 2015, 106, .	1.5	152
108	Lateralâ€Structure Singleâ€Crystal Hybrid Perovskite Solar Cells via Piezoelectric Poling. Advanced Materials, 2016, 28, 2816-2821.	11.1	144

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109	Spontaneous Passivation of Hybrid Perovskite by Sodium Ions from Glass Substrates: Mysterious Enhancement of Device Efficiency Revealed. ACS Energy Letters, 2017, 2, 1400-1406.	8.8	143
110	Universal Formation of Compositionally Graded Bulk Heterojunction for Efficiency Enhancement in Organic Photovoltaics. Advanced Materials, 2014, 26, 3068-3075.	11.1	139
111	Interfacial Molecular Doping of Metal Halide Perovskites for Highly Efficient Solar Cells. Advanced Materials, 2020, 32, e2001581.	11.1	139
112	Synergistic strain engineering of perovskite single crystals for highly stable and sensitive X-ray detectors with low-bias imaging and monitoring. Nature Photonics, 2022, 16, 575-581.	15.6	138
113	Large electrostrictive response in lead halide perovskites. Nature Materials, 2018, 17, 1020-1026.	13.3	137
114	Toward Highly Sensitive Polymer Photodetectors by Molecular Engineering. Advanced Materials, 2015, 27, 6496-6503.	11.1	136
115	Lowâ€Temperature Fabrication of Efficient Wideâ€Bandgap Organolead Trihalide Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1401616.	10.2	134
116	Progress in Tandem Solar Cells Based on Hybrid Organicâ€“Inorganic Perovskites. Advanced Energy Materials, 2017, 7, 1602400.	10.2	130
117	A Highly Sensitive Narrowband Nanocomposite Photodetector with Gain. Advanced Materials, 2016, 28, 2043-2048.	11.1	128
118	Influence of composition and heat-treatment on the charge transport properties of poly(3-hexylthiophene) and [6,6]-phenyl C61-butyric acid methyl ester blends. Applied Physics Letters, 2005, 87, 112105.	1.5	127
119	Tuning the Energy Level Offset between Donor and Acceptor with Ferroelectric Dipole Layers for Increased Efficiency in Bilayer Organic Photovoltaic Cells. Advanced Materials, 2012, 24, 1455-1460.	11.1	127
120	Fullerene Photodetectors with a Linear Dynamic Range of 90 dB Enabled by a Crossâ€Linkable Buffer Layer. Advanced Optical Materials, 2013, 1, 289-294.	3.6	127
121	Integration of perovskite and polymer photoactive layers to produce ultrafast response, ultraviolet-to-near-infrared, sensitive photodetectors. Materials Horizons, 2017, 4, 242-248.	6.4	127
122	Trapping lead in perovskite solar modules with abundant and low-cost cation-exchange resins. Nature Energy, 2020, 5, 1003-1011.	19.8	126
123	Blading Phaseâ€Pure Formamidiniumâ€Alloyed Perovskites for Highâ€Efficiency Solar Cells with Low Photovoltage Deficit and Improved Stability. Advanced Materials, 2020, 32, e2000995.	11.1	125
124	Thin-film semiconductor perspective of organometal trihalide perovskite materials for high-efficiency solar cells. Materials Science and Engineering Reports, 2016, 101, 1-38.	14.8	117
125	A filterless, visible-blind, narrow-band, and near-infrared photodetector with a gain. Nanoscale, 2016, 8, 12990-12997.	2.8	114
126	Defect engineering in wide-bandgap perovskites for efficient perovskiteâ€“silicon tandem solar cells. Nature Photonics, 2022, 16, 588-594.	15.6	112

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127	Real-Time Nanoscale Open-Circuit Voltage Dynamics of Perovskite Solar Cells. Nano Letters, 2017, 17, 2554-2560.	4.5	111
128	Oligomeric Silica-Wrapped Perovskites Enable Synchronous Defect Passivation and Grain Stabilization for Efficient and Stable Perovskite Photovoltaics. ACS Energy Letters, 2019, 4, 1231-1240.	8.8	111
129	Preventing lead leakage with built-in resin layers for sustainable perovskite solar cells. Nature Sustainability, 2021, 4, 636-643.	11.5	111
130	Ligand assisted growth of perovskite single crystals with low defect density. Nature Communications, 2021, 12, 1686.	5.8	110
131	Effects of Precursor Ratios and Annealing on Electronic Structure and Surface Composition of CH₃NH₃PbI₃ Perovskite Films. Journal of Physical Chemistry C, 2016, 120, 215-220.	1.5	108
132	Trap Engineering of CdTe Nanoparticle for High Gain, Fast Response, and Low Noise P3HT:CdTe Nanocomposite Photodetectors. Advanced Materials, 2015, 27, 4975-4981.	11.1	107
133	Synergistic Cascade Carrier Extraction via Dual Interfacial Positioning of Ambipolar Black Phosphorene for Highâ€Efficiency Perovskite Solar Cells. Advanced Materials, 2020, 32, e2000999.	11.1	104
134	Fluorine substituted thiopheneâ€“quinoxalinecopolymer to reduce the HOMO level and increase the dielectric constant for high open-circuit voltage organic solar cells. Journal of Materials Chemistry C, 2013, 1, 630-637.	2.7	101
135	Solutionâ€Processed Fullereneâ€Based Organic Schottky Junction Devices for Largeâ€Openâ€Circuitâ€Voltage Organic Solar Cells. Advanced Materials, 2013, 25, 572-577.	11.1	101
136	Large-area and efficient perovskite light-emitting diodes via low-temperature blade-coating. Nature Communications, 2021, 12, 147.	5.8	100
137	Organohalide Lead Perovskites: More Stable than Glass under Gammaâ€Ray Radiation. Advanced Materials, 2019, 31, e1805547.	11.1	92
138	Manipulating Crystallization of Organolead Mixed-Halide Thin Films in Antisolvent Baths for Wide-Bandgap Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 2232-2237.	4.0	91
139	Decoupling the effects of defects on efficiency and stability through phosphonates in stable halide perovskite solar cells. Joule, 2021, 5, 1246-1266.	11.7	91
140	Synergistic Effect of Elevated Device Temperature and Excess Charge Carriers on the Rapid Lightâ€Induced Degradation of Perovskite Solar Cells. Advanced Materials, 2019, 31, e1902413.	11.1	90
141	Highâ€Performance Allâ€Polymer Photoresponse Devices Based on Acceptorâ€“Acceptor Conjugated Polymers. Advanced Functional Materials, 2016, 26, 6306-6315.	7.8	88
142	Stable Graphene-Two-Dimensional Multiphase Perovskite Heterostructure Phototransistors with High Gain. Nano Letters, 2017, 17, 7330-7338.	4.5	88
143	Improving the power efficiency of white light-emitting diode by doping electron transport material. Applied Physics Letters, 2006, 89, 133509.	1.5	87
144	Double Perovskite Cs₂BBiX₆ (B = Ag, Cu; X = Br, Cl)/TiO₂ Heterojunction: An Efficient Pb-Free Perovskite Interface for Charge Extraction. Journal of Physical Chemistry C, 2017, 121, 4471-4480.	1.5	87

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145	Nanoparticle-induced negative differential resistance and memory effect in polymer bistable light-emitting device. Applied Physics Letters, 2006, 88, 123506.	1.5	86
146	Large Gain, Low Noise Nanocomposite Ultraviolet Photodetectors with a Linear Dynamic Range of 120 dB. Advanced Optical Materials, 2014, 2, 348-353.	3.6	84
147	Electronic structures at the interface between Au and CH₃NH₃PbI₃. Physical Chemistry Chemical Physics, 2015, 17, 896-902.	1.3	82
148	Argon Plasma Treatment to Tune Perovskite Surface Composition for High Efficiency Solar Cells and Fast Photodetectors. Advanced Materials, 2018, 30, 1705176.	11.1	81
149	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
150	Film-through large perovskite grains formation via a combination of sequential thermal and solvent treatment. Journal of Materials Chemistry A, 2016, 4, 8554-8561.	5.2	80
151	Discrete Iron(III) Oxide Nanoislands for Efficient and Photostable Perovskite Solar Cells. Advanced Functional Materials, 2017, 27, 1702090.	7.8	79
152	Distinct Exciton Dissociation Behavior of Organolead Trihalide Perovskite and Excitonic Semiconductors Studied in the Same System. Small, 2015, 11, 2164-2169.	5.2	78
153	Selfâ€Filtered Narrowband Perovskite Photodetectors with Ultrafast and Tuned Spectral Response. Advanced Optical Materials, 2017, 5, 1700672.	3.6	78
154	Unraveling the High Open Circuit Voltage and High Performance of Integrated Perovskite/Organic Bulk-Heterojunction Solar Cells. Nano Letters, 2017, 17, 5140-5147.	4.5	78
155	Universal Strategy To Reduce Noise Current for Sensitive Organic Photodetectors. ACS Applied Materials & Interfaces, 2017, 9, 9176-9183.	4.0	77
156	Highly Efficient Pureâ€Blue Lightâ€Emitting Diodes Based on Rubidium and Chlorine Alloyed Metal Halide Perovskite. Advanced Materials, 2021, 33, e2100783.	11.1	77
157	Heterojunction structures for reduced noise in large-area and sensitive perovskite x-ray detectors. Science Advances, 2021, 7, eabg6716.	4.7	77
158	Organic solvent vapor sensitive methylammonium lead trihalide film formation for efficient hybrid perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 9146-9151.	5.2	74
159	Reduced Self-Doping of Perovskites Induced by Short Annealing for Efficient Solar Modules. Joule, 2020, 4, 1949-1960.	11.7	72
160	Lead-adsorbing ionogel-based encapsulation for impact-resistant, stable, and lead-safe perovskite modules. Science Advances, 2021, 7, eabi8249.	4.7	71
161	Ultrahigh Gain, Low Noise, Ultraviolet Photodetectors with Highly Aligned Organic Crystals. Advanced Optical Materials, 2016, 4, 264-270.	3.6	69
162	Recycling lead and transparent conductors from perovskite solar modules. Nature Communications, 2021, 12, 5859.	5.8	69

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163	Origin of photomultiplication in C60 based devices. Applied Physics Letters, 2007, 91, 203505.	1.5	68
164	Revealing the working mechanism of polymer photodetectors with ultra-high external quantum efficiency. Physical Chemistry Chemical Physics, 2015, 17, 30712-30720.	1.3	66
165	Environmental Surface Stability of the MAPbBr₃ Single Crystal. Journal of Physical Chemistry C, 2018, 122, 3513-3522.	1.5	66
166	Metallic surface doping of metal halide perovskites. Nature Communications, 2021, 12, 7.	5.8	66
167	Suppressing Interfacial Charge Recombination in Electronâ€Transportâ€Layerâ€Free Perovskite Solar Cells to Give an Efficiency Exceeding 21â€‰%. Angewandte Chemie - International Edition, 2020, 59, 20980-20987.	7.2	65
168	Understanding the effect of ferroelectric polarization on power conversion efficiency of organic photovoltaic devices. Energy and Environmental Science, 2012, 5, 8558.	15.6	64
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