Jinsong Huang

List of Publications by Citations

245 papers	51,424 citations	105 h-index	226 g-index
262 ext. papers	59,449 ext. citations	18.3 avg, IF	8.21 L-index

#	Paper	IF	Citations
245	High-efficiency solution processable polymer photovoltaic cells by self-organization of polymer blends. *Nature Materials*, **2005**, 4, 864-868	27	4965
244	Solar cells. Electron-hole diffusion lengths > 175 μm in solution-grown CH3NH3PbI3 single crystals. *Science*, **2015**, 347, 967-70	33.3	3708
243	Origin and elimination of photocurrent hysteresis by fullerene passivation in CH3NH3PbI3 planar heterojunction solar cells. *Nature Communications*, **2014**, 5, 5784	17.4	2089
242	Solvent annealing of perovskite-induced crystal growth for photovoltaic-device efficiency enhancement. *Advanced Materials*, **2014**, 26, 6503-9	24	1348
241	Defect passivation in hybrid perovskite solar cells using quaternary ammonium halide anions and cations. *Nature Energy*, **2017**, 2,	62.3	1241
240	Giant switchable photovoltaic effect in organometal trihalide perovskite devices. *Nature Materials*, **2015**, 14, 193-8	27	1144
239	Non-wetting surface-driven high-aspect-ratio crystalline grain growth for efficient hybrid perovskite solar cells. *Nature Communications*, **2015**, 6, 7747	17.4	1096
238	Efficient, high yield perovskite photovoltaic devices grown by interdiffusion of solution-processed precursor stacking layers. *Energy and Environmental Science*, **2014**, 7, 2619-2623	35.4	1059
237	Ion Migration in Organometal Trihalide Perovskite and Its Impact on Photovoltaic Efficiency and Stability. *Accounts of Chemical Research*, **2016**, 49, 286-93	24.3	1002
236	Ultra-high mobility transparent organic thin film transistors grown by an off-centre spin-coating method. *Nature Communications*, **2014**, 5, 3005	17.4	975
235	Highly narrowband perovskite single-crystal photodetectors enabled by surface-charge recombination. *Nature Photonics*, **2015**, 9, 679-686	33.9	944
234	Sensitive X-ray detectors made of methylammonium lead tribromide perovskite single crystals. *Nature Photonics*, **2016**, 10, 333-339	33.9	894
233	Imperfections and their passivation in halide perovskite solar cells. *Chemical Society Reviews*, **2019**, 48, 3842-3867	58.5	724
232	Grain boundary dominated ion migration in polycrystalline organic–inorganic halide perovskite films. *Energy and Environmental Science*, **2016**, 9, 1752-1759	35.4	701
231	Large fill-factor bilayer iodine perovskite solar cells fabricated by a low-temperature solution-process. *Energy and Environmental Science*, **2014**, 7, 2359-2365	35.4	688
230	Understanding the physical properties of hybrid perovskites for photovoltaic applications. *Nature Reviews Materials*, **2017**, 2,	73.3	673
229	Rational molecular passivation for high-performance perovskite light-emitting diodes. *Nature Photonics*, **2019**, 13, 418-424	33.9	638

228	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. *Nature Energy*, **2020**, 5, 131-140	62.3	552
227	A nanocomposite ultraviolet photodetector based on interfacial trap-controlled charge injection. *Nature Nanotechnology*, **2012**, 7, 798-802	28.7	534
226	Correlation of energy disorder and open-circuit voltage in hybrid perovskite solar cells. *Nature Energy*, **2016**, 1,	62.3	529
225	Scaling behavior of moisture-induced grain degradation in polycrystalline hybrid perovskite thin films. *Energy and Environmental Science*, **2017**, 10, 516-522	35.4	525
224	Scalable fabrication of efficient organolead trihalide perovskite solar cells with doctor-bladed active layers. *Energy and Environmental Science*, **2015**, 8, 1544-1550	35.4	522
223	High-gain and low-driving-voltage photodetectors based on organolead triiodide perovskites. *Advanced Materials*, **2015**, 27, 1912-8	24	491
222	Stabilizing halide perovskite surfaces for solar cell operation with wide-bandgap lead oxysalts. *Science*, **2019**, 365, 473-478	33.3	460
221	Photovoltaic Switching Mechanism in Lateral Structure Hybrid Perovskite Solar Cells. *Advanced Energy Materials*, **2015**, 5, 1500615	21.8	443
220	Efficiency enhancement in organic solar cells with ferroelectric polymers. *Nature Materials*, **2011**, 10, 296-302	27	439
219	Conjugated Lewis Base: Efficient Trap-Passivation and Charge-Extraction for Hybrid Perovskite Solar Cells. *Advanced Materials*, **2017**, 29, 1604545	24	431
218	Thin Insulating Tunneling Contacts for Efficient and Water-Resistant Perovskite Solar Cells. *Advanced Materials*, **2016**, 28, 6734-9	24	430
217	Surfactant-controlled ink drying enables high-speed deposition of perovskite films for efficient photovoltaic modules. *Nature Energy*, **2018**, 3, 560-566	62.3	419
216	Qualifying composition dependent p and n self-doping in CH3NH3PbI3. *Applied Physics Letters*, **2014**, 105, 163508	3.4	417
215	Strained hybrid perovskite thin films and their impact on the intrinsic stability of perovskite solar cells. *Science Advances*, **2017**, 3, eaao5616	14.3	399
214	Advances in Perovskite Solar Cells. *Advanced Science*, **2016**, 3, 1500324	13.6	397
213	Monolithic integration of hybrid perovskite single crystals with heterogenous substrate for highly sensitive X-ray imaging. *Nature Photonics*, **2017**, 11, 315-321	33.9	393
212	Resolving Weak Light of Sub-picowatt per Square Centimeter by Hybrid Perovskite Photodetectors Enabled by Noise Reduction. *Advanced Materials*, **2015**, 27, 2804-10	24	381
211	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	16.4	368

210	Novel nanostructured paper with ultrahigh transparency and ultrahigh haze for solar cells. *Nano Letters*, **2014**, 14, 765-73	11.5	348
209	Stabilizing the □Phase of CsPbI3 Perovskite by Sulfobetaine Zwitterions in One-Step Spin-Coating Films. *Joule*, **2017**, 1, 371-382	27.8	344
208	Dopant compensation in alloyed CHNHPbBrCl perovskite single crystals for gamma-ray spectroscopy. *Nature Materials*, **2017**, 16, 826-833	27	343
207	Manipulating regioregular poly(3-hexylthiophene) : [6,6]-phenyl-C61-butyric acid methyl ester blends□oute towards high efficiency polymer solar cells. *Journal of Materials Chemistry*, **2007**, 17, 3126		338
206	Thin single crystal perovskite solar cells to harvest below-bandgap light absorption. *Nature Communications*, **2017**, 8, 1890	17.4	326
205	Resolving spatial and energetic distributions of trap states in metal halide perovskite solar cells. *Science*, **2020**, 367, 1352-1358	33.3	322
204	Halide lead perovskites for ionizing radiation detection. *Nature Communications*, **2019**, 10, 1066	17.4	317
203	Arising applications of ferroelectric materials in photovoltaic devices. *Journal of Materials Chemistry A*, **2014**, 2, 6027-6041	13	317
202	Enhanced Thermal Stability in Perovskite Solar Cells by Assembling 2D/3D Stacking Structures. *Journal of Physical Chemistry Letters*, **2018**, 9, 654-658	6.4	313
201	Enhancing stability and efficiency of perovskite solar cells with crosslinkable silane-functionalized and doped fullerene. *Nature Communications*, **2016**, 7, 12806	17.4	293
200	Meniscus-assisted solution printing of large-grained perovskite films for high-efficiency solar cells. *Nature Communications*, **2017**, 8, 16045	17.4	292
199	Suppressed Ion Migration in Low-Dimensional Perovskites. *ACS Energy Letters*, **2017**, 2, 1571-1572	20.1	287
198	Bilateral alkylamine for suppressing charge recombination and improving stability in blade-coated perovskite solar cells. *Science Advances*, **2019**, 5, eaav8925	14.3	262
197	Ultrahigh sensitivity of methylammonium lead tribromide perovskite single crystals to environmental gases. *Science Advances*, **2016**, 2, e1600534	14.3	251
196	Biodegradable transparent substrates for flexible organic-light-emitting diodes. *Energy and Environmental Science*, **2013**, 6, 2105	35.4	249
195	Molecular doping enabled scalable blading of efficient hole-transport-layer-free perovskite solar cells. *Nature Communications*, **2018**, 9, 1625	17.4	242
194	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	13	238
193	Air-Stable, Efficient Mixed-Cation Perovskite Solar Cells with Cu Electrode by Scalable Fabrication of Active Layer. *Advanced Energy Materials*, **2016**, 6, 1600372	21.8	235

192	A Self-Powered, Sub-nanosecond-Response Solution-Processed Hybrid Perovskite Photodetector for Time-Resolved Photoluminescence-Lifetime Detection. *Advanced Materials*, **2016**, 28, 10794-10800	24	230
191	Electric-Field-Driven Reversible Conversion Between Methylammonium Lead Triiodide Perovskites and Lead Iodide at Elevated Temperatures. *Advanced Energy Materials*, **2016**, 6, 1501803	21.8	228
190	Ultrafast ion migration in hybrid perovskite polycrystalline thin films under light and suppression in single crystals. *Physical Chemistry Chemical Physics*, **2016**, 18, 30484-30490	3.6	228
189	Grain Engineering for Perovskite/Silicon Monolithic Tandem Solar Cells with Efficiency of 25.4%. *Joule*, **2019**, 3, 177-190	27.8	227
188	Abnormal crystal growth in CH3NH3PbI3−xClx using a multi-cycle solution coating process. *Energy and Environmental Science*, **2015**, 8, 2464-2470	35.4	224
187	High Performance and Stable All-Inorganic Metal Halide Perovskite-Based Photodetectors for Optical Communication Applications. *Advanced Materials*, **2018**, 30, e1803422	24	224
186	Highly Narrowband Photomultiplication Type Organic Photodetectors. *Nano Letters*, **2017**, 17, 1995-2002	11.5	223
185	Doped hole transport layer for efficiency enhancement in planar heterojunction organolead trihalide perovskite solar cells. *Nano Energy*, **2015**, 15, 275-280	17.1	215
184	Energy-Efficient Hybrid Perovskite Memristors and Synaptic Devices. *Advanced Electronic Materials*, **2016**, 2, 1600100	6.4	215
183	Low-Noise and Large-Linear-Dynamic-Range Photodetectors Based on Hybrid-Perovskite Thin-Single-Crystals. *Advanced Materials*, **2017**, 29, 1703209	24	208
182	Efficient Semitransparent Perovskite Solar Cells for 23.0%-Efficiency Perovskite/Silicon Four-Terminal Tandem Cells. *Advanced Energy Materials*, **2016**, 6, 1601128	21.8	203
181	Dual Functions of Crystallization Control and Defect Passivation Enabled by Sulfonic Zwitterions for Stable and Efficient Perovskite Solar Cells. *Advanced Materials*, **2018**, 30, e1803428	24	198
180	Light-Induced Degradation of CH3NH3PbI3 Hybrid Perovskite Thin Film. *Journal of Physical Chemistry C*, **2017**, 121, 3904-3910	3.8	196
179	Composition Engineering in Doctor-Blading of Perovskite Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700302	21.8	195
178	Air stable, photosensitive, phase pure iron pyrite nanocrystal thin films for photovoltaic application. *Nano Letters*, **2011**, 11, 4953-7	11.5	192
177	Charge Carrier Lifetimes Exceeding 15 μs in Methylammonium Lead Iodide Single Crystals. *Journal of Physical Chemistry Letters*, **2016**, 7, 923-8	6.4	191
176	Is Cu a stable electrode material in hybrid perovskite solar cells for a 30-year lifetime?. *Energy and Environmental Science*, **2016**, 9, 3650-3656	35.4	189
175	The Functions of Fullerenes in Hybrid Perovskite Solar Cells. *ACS Energy Letters*, **2017**, 2, 782-794	20.1	184

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173	Stabilized Wide Bandgap MAPbBr I Perovskite by Enhanced Grain Size and Improved Crystallinity. *Advanced Science*, **2016**, 3, 1500301	13.6	182
172	Light-Induced Self-Poling Effect on Organometal Trihalide Perovskite Solar Cells for Increased Device Efficiency and Stability. *Advanced Energy Materials*, **2015**, 5, 1500721	21.8	182
171	CHNHPbI perovskites: Ferroelasticity revealed. *Science Advances*, **2017**, 3, e1602165	14.3	179
170	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	6.4	179
169	Tailoring solvent coordination for high-speed, room-temperature blading of perovskite photovoltaic films. *Science Advances*, **2019**, 5, eaax7537	14.3	179
168	Suppressed Ion Migration along the In-Plane Direction in Layered Perovskites. *ACS Energy Letters*, **2018**, 3, 684-688	20.1	166
167	Efficient sky-blue perovskite light-emitting diodes via photoluminescence enhancement. *Nature Communications*, **2019**, 10, 5633	17.4	164
166	Quantification of re-absorption and re-emission processes to determine photon recycling efficiency in perovskite single crystals. *Nature Communications*, **2017**, 8, 14417	17.4	154
165	Blade-Coated Perovskites on Textured Silicon for 26%-Efficient Monolithic Perovskite/Silicon Tandem Solar Cells. *Joule*, **2020**, 4, 850-864	27.8	154
164	Efficient Flexible Solar Cell based on Composition-Tailored Hybrid Perovskite. *Advanced Materials*, **2017**, 29, 1605900	24	153
163	Synthetic control over orientational degeneracy of spacer cations enhances solar cell efficiency in two-dimensional perovskites. *Nature Communications*, **2019**, 10, 1276	17.4	144
162	Unveiling the operation mechanism of layered perovskite solar cells. *Nature Communications*, **2019**, 10, 1008	17.4	143
161	Vividly colorful hybrid perovskite solar cells by doctor-blade coating with perovskite photonic nanostructures. *Materials Horizons*, **2015**, 2, 578-583	14.4	142
160	An Ultraviolet-to-NIR Broad Spectral Nanocomposite Photodetector with Gain. *Advanced Optical Materials*, **2014**, 2, 549-554	8.1	142
159	Interfacial electronic structure at the CH3NH3PbI3/MoOx interface. *Applied Physics Letters*, **2015**, 106, 193903	3.4	139
158	Enhancing electron diffusion length in narrow-bandgap perovskites for efficient monolithic perovskite tandem solar cells. *Nature Communications*, **2019**, 10, 4498	17.4	138
157	Chloride Incorporation Process in CH3NH3PbI(3-x)Cl(x) Perovskites via Nanoscale Bandgap Maps. *Nano Letters*, **2015**, 15, 8114-21	11.5	138

156	Low Temperature Solution-Processed Sb:SnO Nanocrystals for Efficient Planar Perovskite Solar Cells. *ChemSusChem*, **2016**, 9, 2686-2691	8.3	138
155	Anomalous photovoltaic effect in organic-inorganic hybrid perovskite solar cells. *Science Advances*, **2017**, 3, e1602164	14.3	133
154	Reducing Surface Halide Deficiency for Efficient and Stable Iodide-Based Perovskite Solar Cells. *Journal of the American Chemical Society*, **2020**, 142, 3989-3996	16.4	133
153	Matching Charge Extraction Contact for Wide-Bandgap Perovskite Solar Cells. *Advanced Materials*, **2017**, 29, 1700607	24	126
152	Doping and alloying for improved perovskite solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 17623-17635	13	126
151	Scalable Fabrication of Efficient Perovskite Solar Modules on Flexible Glass Substrates. *Advanced Energy Materials*, **2020**, 10, 1903108	21.8	125
150	Universal formation of compositionally graded bulk heterojunction for efficiency enhancement in organic photovoltaics. *Advanced Materials*, **2014**, 26, 3068-75	24	123
149	Mixed halide perovskites for spectrally stable and high-efficiency blue light-emitting diodes. *Nature Communications*, **2021**, 12, 361	17.4	119
148	Lateral-Structure Single-Crystal Hybrid Perovskite Solar Cells via Piezoelectric Poling. *Advanced Materials*, **2016**, 28, 2816-21	24	118
147	Fullerene Photodetectors with a Linear Dynamic Range of 90 dB Enabled by a Cross-Linkable Buffer Layer. *Advanced Optical Materials*, **2013**, 1, 289-294	8.1	117
146	Toward Highly Sensitive Polymer Photodetectors by Molecular Engineering. *Advanced Materials*, **2015**, 27, 6496-503	24	114
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141	Stabilizing perovskite-substrate interfaces for high-performance perovskite modules. *Science*, **2021**, 373, 902-907	33.3	102
140	Progress in Tandem Solar Cells Based on Hybrid Organic–Inorganic Perovskites. *Advanced Energy Materials*, **2017**, 7, 1602400	21.8	101
139	Integration of perovskite and polymer photoactive layers to produce ultrafast response, ultraviolet-to-near-infrared, sensitive photodetectors. *Materials Horizons*, **2017**, 4, 242-248	14.4	101

138	A Highly Sensitive Narrowband Nanocomposite Photodetector with Gain. *Advanced Materials*, **2016**, 28, 2043-8	24	97
137	Excess charge-carrier induced instability of hybrid perovskites. *Nature Communications*, **2018**, 9, 4981	17.4	95
136	Solution-processed fullerene-based organic Schottky junction devices for large-open-circuit-voltage organic solar cells. *Advanced Materials*, **2013**, 25, 572-7	24	94
135	Perovskite-filled membranes for flexible and large-area direct-conversion X-ray detector arrays. *Nature Photonics*, **2020**, 14, 612-617	33.9	94
134	Spontaneous Passivation of Hybrid Perovskite by Sodium Ions from Glass Substrates: Mysterious Enhancement of Device Efficiency Revealed. *ACS Energy Letters*, **2017**, 2, 1400-1406	20.1	93
133	Templated growth of oriented layered hybrid perovskites on 3D-like perovskites. *Nature Communications*, **2020**, 11, 582	17.4	92
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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	3.8	90
130	Real-Time Nanoscale Open-Circuit Voltage Dynamics of Perovskite Solar Cells. *Nano Letters*, **2017**, 17, 2554-2560	11.5	89
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127	Fluorine substituted thiophene–quinoxaline copolymer 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	7.1	86
126	Simplified interconnection structure based on C60/SnO2-x for all-perovskite tandem solar cells. *Nature Energy*, **2020**, 5, 657-665	62.3	85
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122	Blading Phase-Pure Formamidinium-Alloyed Perovskites for High-Efficiency Solar Cells with Low Photovoltage Deficit and Improved Stability. *Advanced Materials*, **2020**, 32, e2000995	24	80
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119	Interfacial Molecular Doping of Metal Halide Perovskites for Highly Efficient Solar Cells. *Advanced Materials*, **2020**, 32, e2001581	24	77
118	Nanoparticle-induced negative differential resistance and memory effect in polymer bistable light-emitting device. *Applied Physics Letters*, **2006**, 88, 123506	3.4	76
117	Electronic structures at the interface between Au and CH3NH3PbI3. *Physical Chemistry Chemical Physics*, **2015**, 17, 896-902	3.6	72
116	Manipulating Crystallization of Organolead Mixed-Halide Thin Films in Antisolvent Baths for Wide-Bandgap Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 2232-7	9.5	72
115	Synergistic Cascade Carrier Extraction via Dual Interfacial Positioning of Ambipolar Black Phosphorene for High-Efficiency Perovskite Solar Cells. *Advanced Materials*, **2020**, 32, e2000999	24	71
114	Discrete Iron(III) Oxide Nanoislands for Efficient and Photostable Perovskite Solar Cells. *Advanced Functional Materials*, **2017**, 27, 1702090	15.6	71
113	Organic solvent vapor sensitive methylammonium lead trihalide film formation for efficient hybrid perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 9146-9151	13	69
112	Large Gain, Low Noise Nanocomposite Ultraviolet Photodetectors with a Linear Dynamic Range of 120 dB. *Advanced Optical Materials*, **2014**, 2, 348-353	8.1	69
111	Distinct exciton dissociation behavior of organolead trihalide perovskite and excitonic semiconductors studied in the same system. *Small*, **2015**, 11, 2164-9	11	68
110	Film-through large perovskite grains formation via a combination of sequential thermal and solvent treatment. *Journal of Materials Chemistry A*, **2016**, 4, 8554-8561	13	68
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107	Unraveling the High Open Circuit Voltage and High Performance of Integrated Perovskite/Organic Bulk-Heterojunction Solar Cells. *Nano Letters*, **2017**, 17, 5140-5147	11.5	61
106	Origin of photomultiplication in C60 based devices. *Applied Physics Letters*, **2007**, 91, 203505	3.4	61
105	Argon Plasma Treatment to Tune Perovskite Surface Composition for High Efficiency Solar Cells and Fast Photodetectors. *Advanced Materials*, **2018**, 30, 1705176	24	60
104	Understanding the effect of ferroelectric polarization on power conversion efficiency of organic photovoltaic devices. *Energy and Environmental Science*, **2012**, 5, 8558	35.4	60
103	Synergistic Effect of Elevated Device Temperature and Excess Charge Carriers on the Rapid Light-Induced Degradation of Perovskite Solar Cells. *Advanced Materials*, **2019**, 31, e1902413	24	57

102	Unraveling the hidden function of a stabilizer in a precursor in improving hybrid perovskite film morphology for high efficiency solar cells. *Energy and Environmental Science*, **2016**, 9, 867-872	35.4	56
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100	Crystallization in one-step solution deposition of perovskite films: Upward or downward?. *Science Advances*, **2021**, 7,	14.3	56
99	Universal Strategy To Reduce Noise Current for Sensitive Organic Photodetectors. *ACS Applied Materials & Interfaces*, **2017**, 9, 9176-9183	9.5	55
98	Revealing the working mechanism of polymer photodetectors with ultra-high external quantum efficiency. *Physical Chemistry Chemical Physics*, **2015**, 17, 30712-20	3.6	55
97	Iodine reduction for reproducible and high-performance perovskite solar cells and modules. *Science Advances*, **2021**, 7,	14.3	55
96	Ultrahigh Gain, Low Noise, Ultraviolet Photodetectors with Highly Aligned Organic Crystals. *Advanced Optical Materials*, **2016**, 4, 264-270	8.1	55
95	Self-Filtered Narrowband Perovskite Photodetectors with Ultrafast and Tuned Spectral Response. *Advanced Optical Materials*, **2017**, 5, 1700672	8.1	54
94	Organohalide Lead Perovskites: More Stable than Glass under Gamma-Ray Radiation. *Advanced Materials*, **2019**, 31, e1805547	24	51
93	Large-area and efficient perovskite light-emitting diodes via low-temperature blade-coating. *Nature Communications*, **2021**, 12, 147	17.4	51
92	Detection of charged particles with a methylammonium lead tribromide perovskite single crystal. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2017**, 848, 106-108	1.2	49
91	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	3.8	48
90	Reduced Bimolecular Charge Recombination Loss in Thermally Annealed Bilayer Heterojunction Photovoltaic Devices with Large External Quantum Efficiency and Fill Factor. *Journal of Physical Chemistry C*, **2014**, 118, 5196-5202	3.8	48
89	Real-Time Observation of Order-Disorder Transformation of Organic Cations Induced Phase Transition and Anomalous Photoluminescence in Hybrid Perovskites. *Advanced Materials*, **2018**, 30, e1705801	24	45
88	Preventing lead leakage with built-in resin layers for sustainable perovskite solar cells. *Nature Sustainability*, **2021**, 4, 636-643	22.1	44
87	Detecting 100 fW cm Light with Trapped Electron Gated Organic Phototransistors. *Advanced Materials*, **2017**, 29, 1603969	24	43
86	Electronic structure evolution of fullerene on CH3NH3PbI3. *Applied Physics Letters*, **2015**, 106, 111603	3.4	43
85	Reduced Self-Doping of Perovskites Induced by Short Annealing for Efficient Solar Modules. *Joule*, **2020**, 4, 1949-1960	27.8	42

84	Environmental Surface Stability of the MAPbBr3 Single Crystal. *Journal of Physical Chemistry C*, **2018**, 122, 3513-3522	3.8	39
83	Fast Growth of Thin MAPbI3 Crystal Wafers on Aqueous Solution Surface for Efficient Lateral-Structure Perovskite Solar Cells. *Advanced Functional Materials*, **2019**, 29, 1807707	15.6	38
82	Surface analytical investigation on organometal triiodide perovskite. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2015**, 33, 032401	1.3	38
81	Synthesis and Application of Ferroelectric P(VDF-TrFE) Nanoparticles in Organic Photovoltaic Devices for High Efficiency. *Advanced Energy Materials*, **2013**, 3, 1581-1588	21.8	38
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75	Meniscus fabrication of halide perovskite thin films at high throughput for large area and low-cost solar panels. *International Journal of Extreme Manufacturing*, **2019**, 1, 022004	7.9	33
74	Tailoring carrier dynamics in perovskite solar cells via precise dimension and architecture control and interfacial positioning of plasmonic nanoparticles. *Energy and Environmental Science*, **2020**, 13, 1743-1752	35.4	33
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