Jingjing Chang

List of Publications by Year in Descending Order

242 papers	6,507 citations	44 h-index	67 g-index
259 ext. papers	7,967 ext. citations	7.2 avg, IF	6.32 L-index

#	Paper	IF	Citations
242	Promising applications of wide bandgap inorganic perovskites in underwater photovoltaic cells. *Solar Energy*, **2022**, 233, 489-493	6.8	3
241	Surface reconstruction strategy improves the all-inorganic CsPbIBr2 based perovskite solar cells and photodetectors performance. *Nano Energy*, **2022**, 94, 106960	17.1	8
240	Interfacial transport modulation by intrinsic potential difference of janus TMDs based on CsPbI/J-TMDs heterojunctions.. *IScience*, **2022**, 25, 103872	6.1	1
239	Defects and doping engineering towards high performance lead-free or lead-less perovskite solar cells. *Journal of Energy Chemistry*, **2022**, 68, 420-438	12	1
238	Combining in-situ formed PbI2 passivation and secondary passivation for highly efficient and stable planar heterojunction perovskite solar cells. *Organic Electronics*, **2022**, 100, 106361	3.5	2
237	Highly transparent flexible artificial nociceptor based on forming-free ITO memristor. *Applied Physics Letters*, **2022**, 120, 094103	3.4	1
236	Reveal the large open-circuit voltage deficit of all-inorganic CsPbIBr2 perovskite solar cells. *Chinese Physics B*, **2022**, 31, 038804	1.2	1
235	Unveiling the Relationship between Passivation Groups and the Structural and Optoelectronic Performances of Perovskite Surfaces and Devices. *Journal of Physical Chemistry C*, **2022**, 126, 597-604	3.8	1
234	Recent Progress of Electrode Materials for Flexible Perovskite Solar Cells.. *Nano-Micro Letters*, **2022**, 14, 117	19.5	10
233	Flexible perovskite solar cells: Material selection and structure design. *Applied Physics Reviews*, **2022**, 9, 021307	17.3	4
232	Charge-selective-contact-dependent halide phase segregation in CsPbIBr2 perovskite solar cells and its correlation to device degradation. *Applied Surface Science*, **2022**, 595, 153544	6.7	1
231	Impacts of the Electron Transport Layer Surface Reconstruction on the Buried Interface in Perovskite Optoelectronic Devices. *Journal of Physical Chemistry Letters*, **2021**, 11834-11842	6.4	1
230	Reveal the Humidity Effect on the Phase Pure CsPbBr Single Crystals Formation at Room Temperature and Its Application for Ultrahigh Sensitive X-Ray Detector. *Advanced Science*, **2021**, e2103482	13.6	15
229	Generic water-based spray-assisted growth for scalable high-efficiency carbon-electrode all-inorganic perovskite solar cells. *IScience*, **2021**, 24, 103365	6.1	4
228	Slow halide exchange in CsPbIBr2 films for high-efficiency, carbon-based, all-inorganic perovskite solar cells. *Science China Materials*, **2021**, 64, 2107-2117	7.1	3
227	Improved Doping and Optoelectronic Properties of Zn-Doped Cspbbr Perovskite through Mn Codoping Approach. *Journal of Physical Chemistry Letters*, **2021**, 12, 3393-3400	6.4	18
226	Synergetic surface charge transfer doping and passivation toward high efficient and stable perovskite solar cells. *IScience*, **2021**, 24, 102276	6.1	19

225	Performance Improvement of All-Inorganic, Hole-Transport-Layer-Free Perovskite Solar Cells Through Dipoles-Adjustion by Polyethyleneimine Incorporating. *IEEE Electron Device Letters*, **2021**, 42, 537-540	4.4	1
224	An Exploration of All-Inorganic Perovskite/Gallium Arsenide Tandem Solar Cells. *Solar Rrl*, **2021**, 5, 2100121	7.1	11
223	Special issue on Perovskite materials. *Journal of Materials Science: Materials in Electronics*, **2021**, 32, 12745-12745	2.1	
222	Lead halide-templated crystallization of methylamine-free perovskite for efficient photovoltaic modules. *Science*, **2021**, 372, 1327-1332	33.3	113
221	Simple and Convenient Interface Modification by Nanosized Diamond for Carbon Based All-Inorganic CsPbIBr2 Solar Cells. *ACS Applied Energy Materials*, **2021**, 4, 5661-5667	6.1	3
220	Annealing-Free, High-Performance Perovskite Solar Cells by Controlling Crystallization via Guanidinium Cation Doping. *Solar Rrl*, **2021**, 5, 2100097	7.1	3
219	Enhanced Efficiency and Stability of All-Inorganic CsPbI Br Perovskite Solar Cells by Organic and Ionic Mixed Passivation. *Advanced Science*, **2021**, 8, e2101367	13.6	27
218	Synergistic Interface Layer Optimization and Surface Passivation with Fluorocarbon Molecules toward Efficient and Stable Inverted Planar Perovskite Solar Cells. *Research*, **2021**, 2021, 9836752	7.8	8
217	Hf0.5Zr0.5O2-based ferroelectric memristor with multilevel storage potential and artificial synaptic plasticity. *Science China Materials*, **2021**, 64, 727-738	7.1	11
216	Recent advances in resistive random access memory based on lead halide perovskite. *Informaā Materiāy*, **2021**, 3, 293-315	23.1	29
215	Enhanced efficiency and stability of planar perovskite solar cells using SnO2:InCl3 electron transport layer through synergetic doping and passivation approaches. *Chemical Engineering Journal*, **2021**, 407, 127997	14.7	31
214	Reducing the acceptor levels of p-type Ga2O3 by (metal, N) co-doping approach. *Journal of Alloys and Compounds*, **2021**, 854, 157247	5.7	7
213	Multilevel oxygen-vacancy conductive filaments in GaO based resistive random access memory. *Physical Chemistry Chemical Physics*, **2021**, 23, 5975-5983	3.6	8
212	Suppressing Halide Phase Segregation in CsPbIBr Films by Polymer Modification for Hysteresis-Less All-Inorganic Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2021**, 13, 2868-2878	9.5	11
211	Carbon-based, all-inorganic, lead-free Ag2BiI5 rudorffite solar cells with high photovoltages. *Solid-State Electronics*, **2021**, 176, 107950	1.7	4
210	Synchronous Interface Modification and Bulk Passivation via a One-Step Cesium Bromide Diffusion Process for Highly Efficient Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2021**, 13, 10110-10119	9.5	7
209	Two-Dimensional (C6H5C2H4NH3)2PbI4 Perovskite Single Crystal Resistive Switching Memory Devices. *IEEE Electron Device Letters*, **2021**, 42, 327-330	4.4	3
208	Influence of Oxygen on Ga2O3 Films Deposited on Sapphire Substrates by MOCVD. *ECS Journal of Solid State Science and Technology*, **2021**, 10, 075009	2	1

207	Secondary crystallization strategy for highly efficient inorganic CsPbI2Br perovskite solar cells with efficiency approaching 17%. *Journal of Energy Chemistry*, **2021**, 63, 558-558	12	7
206	Sandwiched electrode buffer for efficient and stable perovskite solar cells with dual back surface fields. *Joule*, **2021**, 5, 2148-2163	27.8	18
205	Reducing the interfacial energy loss via oxide/perovskite heterojunction engineering for high efficient and stable perovskite solar cells. *Chemical Engineering Journal*, **2021**, 417, 129184	14.7	15
204	Aqueous solution-deposited aluminum-gallium-oxide alloy gate dielectrics for low voltage fully oxide thin film transistors. *Applied Physics Letters*, **2021**, 119, 112102	3.4	3
203	Tuning the intrinsic electric field of Janus-TMDs to realize high-performance □Ga2O3 device based on □Ga2O3/Janus-TMD heterostructures. *Materials Today Physics*, **2021**, 21, 100549	8	4
202	A new all-inorganic vacancy-ordered double perovskite Cs2CrI6 for high-performance photovoltaic cells and alpha-particle detection in space environment. *Materials Today Physics*, **2021**, 20, 100446	8	9
201	Recent progress of inorganic hole transport materials for efficient and stable perovskite solar cells. *Nano Select*, **2021**, 2, 1055-1080	3.1	7
200	97.3% Pb-Reduced CsPbGeBr Perovskite with Enhanced Phase Stability and Photovoltaic Performance through Surface Cu Doping. *Journal of Physical Chemistry Letters*, **2021**, 12, 1098-1103	6.4	10
199	Aqueous Solution Derived Amorphous Indium Doped Gallium Oxide Thin-Film Transistors. *IEEE Journal of the Electron Devices Society*, **2021**, 9, 373-377	2.3	1
198	Improved Interface Contact for Highly Stable All-Inorganic CsPbI2Br Planar Perovskite Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 5173-5181	6.1	12
197	Contact barriers modulation of graphene/□Ga2O3 interface for high-performance Ga2O3 devices. *Applied Surface Science*, **2020**, 527, 146740	6.7	12
196	Metal oxide heterojunctions for high performance solution grown oxide thin film transistors. *Applied Surface Science*, **2020**, 527, 146774	6.7	10
195	Suppressing intrinsic self-doping of CsPbIBr2 films for high-performance all-inorganic, carbon-based perovskite solar cells. *Sustainable Energy and Fuels*, **2020**, 4, 4506-4515	5.8	14
194	Enhanced efficiency and stability of planar perovskite solar cells by introducing amino acid to SnO2/perovskite interface. *Journal of Power Sources*, **2020**, 455, 227974	8.9	49
193	Dual-Phase CsPbCl-CsPbCl Perovskite Films for Self-Powered, Visible-Blind UV Photodetectors with Fast Response. *ACS Applied Materials & Interfaces*, **2020**, 12, 32961-32969	9.5	73
192	Recent progress of two-dimensional lead halide perovskite single crystals: Crystal growth, physical properties, and device applications. *EcoMat*, **2020**, 2, e12036	9.4	36
191	Deep-Ultraviolet Photoactivation-Assisted Contact Engineering Toward High-Efficiency and Stable All-Inorganic CsPbI2Br Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 2000001	7.1	25
190	Improving electron extraction ability and suppressing recombination of planar perovskite solar cells with the triple cascade electron transporting layer. *Solar Energy Materials and Solar Cells*, **2020**, 208, 110419	6.4	4

189	Surface functionalization modulates the structural and optoelectronic properties of two-dimensional Ga2O3. *Materials Today Physics*, **2020**, 12, 100192	8	16
188	Toward High-Performance Electron/Hole-Transporting-Layer-Free, Self-Powered CsPbIBr Photodetectors via Interfacial Engineering. *ACS Applied Materials & Interfaces*, **2020**, 12, 6607-6614	9.5	15
187	High Performance Planar Structure Perovskite Solar Cells Using a Solvent Dripping Treatment on Hole Transporting Layer. *Coatings*, **2020**, 10, 127	2.9	7
186	NiO/Perovskite Heterojunction Contact Engineering for Highly Efficient and Stable Perovskite Solar Cells. *Advanced Science*, **2020**, 7, 1903044	13.6	87
185	Interfacial Voids Trigger Carbon-Based, All-Inorganic CsPbIBr Perovskite Solar Cells with Photovoltage Exceeding 1.33 V. *Nano-Micro Letters*, **2020**, 12, 87	19.5	61
184	Comparison of Ga2O3 Films Grown on m- and r-plane Sapphire Substrates by MOCVD. *ECS Journal of Solid State Science and Technology*, **2020**, 9, 125008	2	1
183	Transparent Ultrathin Metal Electrode with Microcavity Configuration for Highly Efficient TCO-Free Perovskite Solar Cells. *Materials*, **2020**, 13,	3.5	1
182	Modulation of the transport properties of metal/MoS interfaces using BN-graphene lateral tunneling layers. *Nanotechnology*, **2020**, 31, 485204	3.4	1
181	Improve the oxide/perovskite heterojunction contact for low temperature high efficiency and stable all-inorganic CsPbI2Br perovskite solar cells. *Nano Energy*, **2020**, 67, 104241	17.1	68
180	Recycling of FTO/TiO Substrates: Route toward Simultaneously High-Performance and Cost-Efficient Carbon-Based, All-Inorganic CsPbIBr Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 4549-4557	9.5	19
179	Enhancing Perovskite Solar Cell Performance through Surface Engineering of Metal Oxide Electron-Transporting Layer. *Coatings*, **2020**, 10, 46	2.9	3
178	Spontaneously Micropatterned Silk/Gelatin Scaffolds with Topographical, Biological, and Electrical Stimuli for Neuronal Regulation. *ACS Biomaterials Science and Engineering*, **2020**, 6, 1144-1153	5.5	13
177	Sacrificial additive-assisted film growth endows self-powered CsPbBr3 photodetectors with ultra-low dark current and high sensitivity. *Journal of Materials Chemistry C*, **2020**, 8, 209-218	7.1	14
176	Flux-mediated growth strategy enables low-temperature fabrication of high-efficiency all-inorganic CsPbIBr2 perovskite solar cells. *Electrochimica Acta*, **2020**, 330, 135325	6.7	19
175	Boosting performance of perovskite solar cells with Graphene quantum dots decorated SnO2 electron transport layers. *Applied Surface Science*, **2020**, 507, 145099	6.7	45
174	Tailored interfacial crystal facets for efficient CH3NH3PbI3 perovskite solar cells. *Organic Electronics*, **2020**, 78, 105598	3.5	3
173	Dipole-templated homogeneous grain growth of CsPbIBr2 films for efficient self-powered, all-inorganic photodetectors. *Solar Energy*, **2020**, 209, 371-378	6.8	5
172	The crystal anisotropy effect of MAPbI3 perovskite on optoelectronic devices. *Materials Today Energy*, **2020**, 17, 100481	7	15

171	Ultrawide Band Gap Oxide Semiconductor-Triggered Performance Improvement of Perovskite Solar Cells via the Novel GaO/SnO Composite Electron-Transporting Bilayer. *ACS Applied Materials & Interfaces*, **2020**, 12, 54703-54710	9.5	12
170	N-Substituted Phenothiazines as Environmentally Friendly Hole-Transporting Materials for Low-Cost and Highly Stable Halide Perovskite Solar Cells. *ACS Omega*, **2020**, 5, 23334-23342	3.9	5
169	High-Performance, Vacuum-Free, and Self-Powered CsPbIBr2 Photodetectors Boosted by Ultra-Wide-Bandgap Ga2O3 Interlayer. *IEEE Electron Device Letters*, **2020**, 41, 1532-1535	4.4	7
168	All-Inorganic CsPbIxBr3□ Perovskite Solar Cells: Crystal Anisotropy Effect. *Advanced Theory and Simulations*, **2020**, 3, 2000055	3.5	14
167	Polyelectrolyte-Doped SnO2 as a Tunable Electron Transport Layer for High-Efficiency and Stable Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 1900336	7.1	38
166	Combustion-processed NiO/ALD TiO2 bilayer as a novel low-temperature electron transporting material for efficient all-inorganic CsPbIBr2 solar cell. *Solar Energy*, **2020**, 203, 10-18	6.8	7
165	Highly efficient bifacial CsPbIBr solar cells with a TeO/Ag transparent electrode and unsymmetrical carrier transport behavior. *Dalton Transactions*, **2020**, 49, 6012-6019	4.3	9
164	Mechanical and thermodynamic properties of two-dimensional monoclinic Ga2O3. *Materials and Design*, **2019**, 184, 108197	8.1	17
163	Low temperature ZnO/TiOx electron-transport layer processed from aqueous solution for highly efficient and stable planar perovskite solar cells. *Materials Today Energy*, **2019**, 14, 100351	7	8
162	Controllable Self-Assembly of PTCDI-C8 for High Mobility Low-Dimensional Organic Field-Effect Transistors. *ACS Applied Electronic Materials*, **2019**, 1, 2030-2036	4	11
161	Numerical Simulation of Planar Heterojunction Perovskite Solar Cells Based on SnO2 Electron Transport Layer. *ACS Applied Energy Materials*, **2019**, 2, 4504-4512	6.1	49
160	Benign Pinholes in CsPbIBr2 Absorber Film Enable Efficient Carbon-Based, All-Inorganic Perovskite Solar Cells. *ACS Applied Energy Materials*, **2019**, 2, 5254-5262	6.1	26
159	Efficient NiOx Hole Transporting Layer Obtained by the Oxidation of Metal Nickel Film for Perovskite Solar Cells. *ACS Applied Energy Materials*, **2019**, 2, 4700-4707	6.1	23
158	Efficient planar perovskite solar cells with low-temperature atomic layer deposited TiO2 electron transport layer and interfacial modifier. *Solar Energy*, **2019**, 188, 239-246	6.8	16
157	An efficient TeO2/Ag transparent top electrode for 20%-efficiency bifacial perovskite solar cells with a bifaciality factor exceeding 80%. *Journal of Materials Chemistry A*, **2019**, 7, 15156-15163	13	26
156	Intermediate Phase Halide Exchange Strategy toward a High-Quality, Thick CsPbBr Film for Optoelectronic Applications. *ACS Applied Materials & Interfaces*, **2019**, 11, 22543-22549	9.5	19
155	Disappeared deep charge-states transition levels in the p-type intrinsic CsSnCl3 perovskite. *Applied Physics Letters*, **2019**, 114, 181902	3.4	17
154	Simultaneously enhanced performance and stability of inverted perovskite solar cells via a rational design of hole transport layer. *Organic Electronics*, **2019**, 73, 69-75	3.5	7

153	Performance enhancement of perovskite solar cells via material quality improvement assisted by MAI/IPA solution post-treatment. *Dalton Transactions*, **2019**, 48, 5292-5298	4.3	6
152	Theoretical Studies of Electronic and Optical Behaviors of All-Inorganic CsPbI3 and Two-Dimensional MS2 (M = Mo, W) Heterostructures. *Journal of Physical Chemistry C*, **2019**, 123, 7158-7165	3.8	16
151	Band Alignment Engineering Towards High Efficiency Carbon-Based Inorganic Planar CsPbIBr Perovskite Solar Cells. *ChemSusChem*, **2019**, 12, 2318-2325	8.3	82
150	Unusual properties and potential applications of strain BN-MS (M = Mo, W) heterostructures. *Scientific Reports*, **2019**, 9, 3518	4.9	9
149	Phenothiazine-Based Hole-Transporting Materials toward Eco-friendly Perovskite Solar Cells. *ACS Applied Energy Materials*, **2019**, 2, 3021-3027	6.1	28
148	Enhancing material quality and device performance of perovskite solar cells via a facile regrowth way assisted by the DMF/Chlorobenzene mixed solution. *Organic Electronics*, **2019**, 70, 300-305	3.5	5
147	Interface engineering of low temperature processed all-inorganic CsPbI2Br perovskite solar cells toward PCE exceeding 14%. *Nano Energy*, **2019**, 60, 583-590	17.1	109
146	Low-Temperature Solution-Processed ZnO Electron Transport Layer for Highly Efficient and Stable Planar Perovskite Solar Cells with Efficiency Over 20%. *Solar Rrl*, **2019**, 3, 1900096	7.1	52
145	Potential Applications of Halide Double Perovskite CsAgInX (X = Cl, Br) in Flexible Optoelectronics: Unusual Effects of Uniaxial Strains. *Journal of Physical Chemistry Letters*, **2019**, 10, 1120-1125	6.4	20
144	Low temperature combustion synthesized indium oxide electron transport layer for high performance and stable perovskite solar cells. *Journal of Power Sources*, **2019**, 438, 226981	8.9	17
143	Highly Efficient and Stable Planar Perovskite Solar Cells with Modulated Diffusion Passivation Toward High Power Conversion Efficiency and Ultrahigh Fill Factor. *Solar Rrl*, **2019**, 3, 1900293	7.1	71
142	A Modulated Double-Passivation Strategy Toward Highly Efficient Perovskite Solar Cells with Efficiency Over 21%. *Solar Rrl*, **2019**, 3, 1900291	7.1	10
141	Understanding the Potential of 2D Ga2O3 in Flexible Optoelectronic Devices: Impact of Uniaxial Strain and Electric Field. *Advanced Theory and Simulations*, **2019**, 2, 1900106	3.5	16
140	A 800 V β-Ga2O3 Metal–Oxide–Semiconductor Field-Effect Transistor with High-Power Figure of Merit of Over 86.3 MW cm−2. *Physica Status Solidi (A) Applications and Materials Science*, **2019**, 216, 1900421	1.6	19
139	Efficient Ni/Au Mesh Transparent Electrodes for ITO-Free Planar Perovskite Solar Cells. *Nanomaterials*, **2019**, 9,	5.4	15
138	Beneficial Role of Organolead Halide Perovskite CH3NH3PbI3/SnO2 Interface: Theoretical and Experimental Study. *Advanced Materials Interfaces*, **2019**, 6, 1900400	4.6	16
137	Theoretical Analysis of Two-Terminal and Four-Terminal Perovskite/Copper Indium Gallium Selenide Tandem Solar Cells. *Solar Rrl*, **2019**, 3, 1900303	7.1	28
136	Achieving high performance and stable inverted planar perovskite solar cells using lithium and cobalt co-doped nickel oxide as hole transport layers. *Journal of Materials Chemistry C*, **2019**, 7, 9270-9277	7.1	26

135	Interfacial TiO2 atomic layer deposition triggers simultaneous crystallization control and band alignment for efficient CsPbIBr2 perovskite solar cell. *Organic Electronics*, **2019**, 74, 103-109	3.5	21
134	A Review on Energy Band-Gap Engineering for Perovskite Photovoltaics. *Solar Rrl*, **2019**, 3, 1900304	7.1	41
133	Synthesis and Characterization of Oxygen-Embedded Quinoidal Pentacene and Nonacene. *Journal of the American Chemical Society*, **2019**, 141, 2169-2176	16.4	28
132	Optimizing the Performance of CsPbI-Based Perovskite Solar Cells via Doping a ZnO Electron Transport Layer Coupled with Interface Engineering. *Nano-Micro Letters*, **2019**, 11, 91	19.5	31
131	Light Processing Enables Efficient Carbon-Based, All-Inorganic Planar CsPbIBr Solar Cells with High Photovoltages. *ACS Applied Materials & Interfaces*, **2019**, 11, 2997-3005	9.5	81
130	Reducing Defects in Perovskite Solar Cells with White Light Illumination-Assisted Synthesis. *ACS Energy Letters*, **2019**, 4, 2821-2829	20.1	20
129	Pressure-Dependent Mechanical and Thermal Properties of Lead-Free Halide Double Perovskite Cs2AgB?X6 (B??In, Bi; X?Cl, Br, I). *Advanced Theory and Simulations*, **2019**, 2, 1900164	3.5	7
128	A Facile Way to Improve the Performance of Perovskite Solar Cells by Toluene and Diethyl Ether Mixed Anti-Solvent Engineering. *Coatings*, **2019**, 9, 766	2.9	7
127	A Review on Energy Band-Gap Engineering for Perovskite Photovoltaics. *Solar Rrl*, **2019**, 3, 1970116	7.1	14
126	Understanding the transport and contact properties of metal/BN-MoS2 interfaces to realize high performance MoS2 FETs. *Journal of Alloys and Compounds*, **2019**, 771, 1052-1061	5.7	6
125	Acenaphthylene-imide based small molecules/TiO2 bilayer as electron-transporting layer for solution-processing efficient perovskite solar cells. *Science China Materials*, **2019**, 62, 497-507	7.1	15
124	Device simulation of inverted CH3NH3PbI3□Clx perovskite solar cells based on PCBM electron transport layer and NiO hole transport layer. *Solar Energy*, **2018**, 169, 11-18	6.8	59
123	Room temperature ferroelectricity of hybrid organic□inorganic perovskites with mixed iodine and bromine. *Journal of Materials Chemistry A*, **2018**, 6, 9665-9676	13	21
122	A non-equilibrium Ti doping strategy for an efficient hematite electron transport layer in perovskite solar cells. *Dalton Transactions*, **2018**, 47, 6404-6411	4.3	5
121	Simultaneouly enhanced durability and performance by employing dopamine copolymerized PEDOT with high work function and water-proofness for inverted perovskite solar cells. *Journal of Materials Chemistry C*, **2018**, 6, 2311-2318	7.1	24
120	Solution-processed high performance organic thin film transistors enabled by roll-to-roll slot die coating technique. *Organic Electronics*, **2018**, 54, 80-88	3.5	31
119	Elucidating the Roles of TiCl4 and PCBM Fullerene Treatment on TiO2 Electron Transporting Layer for Highly Efficient Planar Perovskite Solar Cells. *Journal of Physical Chemistry C*, **2018**, 122, 1044-1053	3.8	48
118	Enhanced planar perovskite solar cell efficiency and stability using a perovskite/PCBM heterojunction formed in one step. *Nanoscale*, **2018**, 10, 3053-3059	7.7	61

117	High-Performance Planar Perovskite Solar Cells Using Low Temperature, Solution□Combustion-Based Nickel Oxide Hole Transporting Layer with Efficiency Exceeding 20%. *Advanced Energy Materials*, **2018**, 8, 1703432	21.8	209
116	Efficient Bifacial Semitransparent Perovskite Solar Cells Using Ag/VO as Transparent Anodes. *ACS Applied Materials & Interfaces*, **2018**, 10, 12731-12739	9.5	39
115	Investigation on the structural, morphological, electronic and photovoltaic properties of a perovskite thin film by introducing lithium halide.. *RSC Advances*, **2018**, 8, 11455-11461	3.7	4
114	Simulation Study Toward High-Performance Transparent-Conductive-Oxide Free Perovskite Solar Cells Using Metal Microcavity and Optical Coupling Layer. *IEEE Photonics Journal*, **2018**, 1-1	1.8	5
113	Inverted Organic Solar Cells with Low-Temperature Al-Doped-ZnO Electron Transport Layer Processed from Aqueous Solution. *Polymers*, **2018**, 10,	4.5	14
112	Enhanced Planar Perovskite Solar Cell Performance via Contact Passivation of TiO2/Perovskite Interface with NaCl Doping Approach. *ACS Applied Energy Materials*, **2018**, 1, 3826-3834	6.1	49
111	Highly efficient perovskite solar cells based on a dopant-free conjugated DPP polymer hole transport layer: influence of solvent vapor annealing. *Sustainable Energy and Fuels*, **2018**, 2, 2154-2159	5.8	15
110	Interface engineering of TiO2/perovskite interface via fullerene derivatives for high performance planar perovskite solar cells. *Organic Electronics*, **2018**, 62, 459-467	3.5	20
109	Alleviating hysteresis and improving efficiency of MA1□FAyPbI3□Brx perovskite solar cells by controlling the halide composition. *Journal of Materials Science*, **2018**, 53, 16500-16510	4.3	8
108	Aged Precursor Solution toward Low-Temperature Fabrication of Efficient Carbon-Based All-Inorganic Planar CsPbIBr2 Perovskite Solar Cells. *ACS Applied Energy Materials*, **2018**, 1, 4991-4997	6.1	67
107	Effects of Interfacial Passivation on the Electrical Performance, Stability, and Contact Properties of Solution Process Based ZnO Thin Film Transistors. *Materials*, **2018**, 11,	3.5	16
106	Device Simulation of Organic□norganic Halide Perovskite/Crystalline Silicon Four-Terminal Tandem Solar Cell With Various Antireflection Materials. *IEEE Journal of Photovoltaics*, **2018**, 8, 1685-1691	3.7	18
105	Unusual Electronic and Optical Properties of Two-Dimensional Ga2O3 Predicted by Density Functional Theory. *Journal of Physical Chemistry C*, **2018**, 122, 24592-24599	3.8	34
104	Improving Electron Extraction Ability and Device Stability of Perovskite Solar Cells Using a Compatible PCBM/AZO Electron Transporting Bilayer. *Nanomaterials*, **2018**, 8,	5.4	23
103	Intermolecular Exchange Boosts Efficiency of Air-Stable, Carbon-Based All-Inorganic Planar CsPbIBr2 Perovskite Solar Cells to Over 9%. *Advanced Energy Materials*, **2018**, 8, 1802080	21.8	173
102	Efficient Semitransparent Perovskite Solar Cells Using a Transparent Silver Electrode and Four-Terminal Perovskite/Silicon Tandem Device Exploration. *Journal of Nanomaterials*, **2018**, 2018, 1-8	3.2	5
101	Theoretical and Experimental Investigation of Mixed Pb□h Halide Perovskites. *Journal of Physical Chemistry C*, **2018**, 122, 15945-15953	3.8	15
100	Performance Enhancement of Planar Heterojunction Perovskite Solar Cells through Tuning the Doping Properties of Hole-Transporting Materials. *ACS Omega*, **2017**, 2, 326-336	3.9	55

99	Effect of ultraviolet absorptivity and waterproofness of poly(3,4-ethylenedioxythiophene) with extremely weak acidity, high conductivity on enhanced stability of perovskite solar cells. *Journal of Power Sources*, **2017**, 358, 29-38	8.9	21
98	Enhanced Performance and Stability of Polymer Solar Cells by In Situ Formed AlOx Passivation and Doping. *Journal of Physical Chemistry C*, **2017**, 121, 10275-10281	3.8	10
97	Efficient bifacial semitransparent perovskite solar cells with silver thin film electrode. *Solar Energy Materials and Solar Cells*, **2017**, 170, 278-286	6.4	43
96	Enhanced efficiency of planar perovskite solar cells via a two-step deposition using DMF as an additive to optimize the crystal growth behavior. *Journal of Materials Chemistry A*, **2017**, 5, 13032-13038	13	69
95	Experimental study and simulation analysis on friction behavior of a mechanical surface sliding on hard particles. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, **2017**, 231, 1371-1379	1.4	7
94	Improving the efficiency and stability of inverted perovskite solar cells with dopamine-copolymerized PEDOT:PSS as a hole extraction layer. *Journal of Materials Chemistry A*, **2017**, 5, 13817-13822	13	63
93	Intermediate Phase Intermolecular Exchange Triggered Defect Elimination in CHNHPbI toward Room-Temperature Fabrication of Efficient Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2017**, 9, 40378-40385	9.5	11
92	High-Performance Simple-Structured Planar Heterojunction Perovskite Solar Cells Achieved by Precursor Optimization. *ACS Omega*, **2017**, 2, 6250-6258	3.9	16
91	A PCBM-Modified TiO2 Blocking Layer towards Efficient Perovskite Solar Cells. *International Journal of Photoenergy*, **2017**, 2017, 1-9	2.1	18
90	Organic Field-Effect Transistor: Device Physics, Materials, and Process **2017**,		3
89	Enhanced planar heterojunction perovskite solar cell performance and stability using PDDA polyelectrolyte capping agent. *Solar Energy Materials and Solar Cells*, **2017**, 172, 133-139	6.4	18
88	Investigation of Fe2+-incorporating organic□inorganic hybrid perovskites from first principles and experiments. *RSC Advances*, **2017**, 7, 54586-54593	3.7	18
87	High performance transient organic solar cells on biodegradable polyvinyl alcohol composite substrates. *RSC Advances*, **2017**, 7, 52930-52937	3.7	14
86	Effects of Annealing Conditions on Mixed Lead Halide Perovskite Solar Cells and Their Thermal Stability Investigation. *Materials*, **2017**, 10,	3.5	23
85	Low Temperature Aqueous Solution-Processed ZnO and Polyethylenimine Ethoxylated Cathode Buffer Bilayer for High Performance Flexible Inverted Organic Solar Cells. *Energies*, **2017**, 10, 494	3.1	7
84	Efficient Inverted ITO-Free Organic Solar Cells Based on Transparent Silver Electrode with Aqueous Solution-Processed ZnO Interlayer. *International Journal of Photoenergy*, **2017**, 2017, 1-6	2.1	
83	Mixed-solvent-vapor annealing of perovskite for photovoltaic device efficiency enhancement. *Nano Energy*, **2016**, 28, 417-425	17.1	90
82	Diacenopentalene dicarboximides as new n-type organic semiconductors for field-effect transistors. *Journal of Materials Chemistry C*, **2016**, 4, 8758-8764	7.1	23

81	High-Performance Low-Bandgap Polymer Solar Cells With Optical Microcavity Employing Ultrathin Ag Film Electrode. *IEEE Photonics Journal*, **2016**, 8, 1-12	1.8	2
80	Controlling aggregation and crystallization of solution processed diketopyrrolopyrrole based polymer for high performance thin film transistors by pre-metered slot die coating process. *Organic Electronics*, **2016**, 36, 113-119	3.5	15
79	Low temperature aqueous solution-processed Li doped ZnO buffer layers for high performance inverted organic solar cells. *Journal of Materials Chemistry C*, **2016**, 4, 6169-6175	7.1	33
78	Z-Shaped Pentaleno-Acene Dimers with High Stability and Small Band Gap. *Angewandte Chemie*, **2016**, 128, 2743-2746	3.6	12
77	Nitrogen and sulfur co-doped graphene aerogels as an efficient metal-free catalyst for oxygen reduction reaction in an alkaline solution. *RSC Advances*, **2016**, 6, 22781-22790	3.7	37
76	Boosting the performance of planar heterojunction perovskite solar cell by controlling the precursor purity of perovskite materials. *Journal of Materials Chemistry A*, **2016**, 4, 887-893	13	117
75	Stable Inverted Low-Bandgap Polymer Solar Cells with Aqueous Solution Processed Low-Temperature ZnO Buffer Layers. *International Journal of Photoenergy*, **2016**, 2016, 1-7	2.1	2
74	Z-Shaped Pentaleno-Acene Dimers with High Stability and Small Band Gap. *Angewandte Chemie - International Edition*, **2016**, 55, 2693-6	16.4	46
73	Efficient flexible inverted small-bandgap organic solar cells with low-temperature zinc oxide interlayer. *Japanese Journal of Applied Physics*, **2016**, 55, 122302	1.4	6
72	Enhancing the planar heterojunction perovskite solar cell performance through tuning the precursor ratio. *Journal of Materials Chemistry A*, **2016**, 4, 7943-7949	13	79
71	High-Mobility Ambipolar Organic Thin-Film Transistor Processed From a Nonchlorinated Solvent. *ACS Applied Materials & Interfaces*, **2016**, 8, 24325-30	9.5	22
70	Effect of polyelectrolyte interlayer on efficiency and stability of p-i-n perovskite solar cells. *Solar Energy*, **2016**, 139, 190-198	6.8	22
69	Elucidating the charge carrier transport and extraction in planar heterojunction perovskite solar cells by Kelvin probe force microscopy. *Journal of Materials Chemistry A*, **2016**, 4, 17464-17472	13	38
68	Enhancing the photovoltaic performance of planar heterojunction perovskite solar cells by doping the perovskite layer with alkali metal ions. *Journal of Materials Chemistry A*, **2016**, 4, 16546-16552	13	119
67	Interface studies of the planar heterojunction perovskite solar cells. *Solar Energy Materials and Solar Cells*, **2016**, 157, 783-790	6.4	38
66	Efficient inverted polymer solar cells using low-temperature zinc oxide interlayer processed from aqueous solution. *Japanese Journal of Applied Physics*, **2015**, 54, 042301	1.4	9
65	Pro-aromatic bisphenaleno-thieno[3,2-b]thiophene versus anti-aromatic bisindeno-thieno[3,2-b]thiophene: different ground-state properties and applications in field-effect transistors. *Chemical Communications*, **2015**, 51, 13178-80	5.8	18
64	Effects of organic inorganic hybrid perovskite materials on the electronic properties and morphology of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) and the photovoltaic performance of planar perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 15897-15904	13	71

63	Hole mobility of 3.56 cm2 V−1 s−1 accomplished using more extended dithienothiophene with furan flanked diketopyrrolopyrrole polymer. *Journal of Materials Chemistry C*, **2015**, 3, 9299-9305	7.1	37
62	Transparent conductive oxide-free perovskite solar cells with PEDOT:PSS as transparent electrode. *ACS Applied Materials & Interfaces*, **2015**, 7, 15314-20	9.5	169
61	A two-layer structured PbI2 thin film for efficient planar perovskite solar cells. *Nanoscale*, **2015**, 7, 12092-5	7.7	34
60	Structures and properties of polyimide fibers containing ether units. *Journal of Materials Science*, **2015**, 50, 4104-4114	4.3	35
59	Flexible ITO-Free Organic Solar Cells Based on $hbox{MoO}_{3}/hbox{Ag}$ Anodes. *IEEE Photonics Journal*, **2015**, 7, 1-9	1.8	11
58	Structures and properties of polyimide fibers containing fluorine groups. *RSC Advances*, **2015**, 5, 71425-71432	3.7	25
57	Effect of pre-imidization on the structures and properties of polyimide fibers. *RSC Advances*, **2015**, 5, 69555-69566	3.7	25
56	Thienoacene-fused pentalenes: syntheses, structures, physical properties and applications for organic field-effect transistors. *Chemistry - A European Journal*, **2015**, 21, 2019-28	4.8	25
55	Solution processed F doped ZnO (ZnO:F) for thin film transistors and improved stability through co-doping with alkali metals. *Journal of Materials Chemistry C*, **2015**, 3, 1787-1793	7.1	49
54	Efficiency enhancement of planar perovskite solar cells by adding zwitterion/LiF double interlayers for electron collection. *Nanoscale*, **2015**, 7, 896-900	7.7	119
53	Dianthraceno[a,e]pentalenes: synthesis, crystallographic structures and applications in organic field-effect transistors. *Chemical Communications*, **2015**, 51, 503-6	5.8	52
52	Enhanced Polymer Thin Film Transistor Performance by Carefully Controlling the Solution Self-Assembly and Film Alignment with Slot Die Coating. *Advanced Electronic Materials*, **2015**, 1, 1500036	6.4	30
51	Orderly Nanopatterned Indium Tin Oxide Electrode Combined with Atomic-Layer-Deposited Metal Oxide Interlayer for Inverted Organic Solar Cells. *Energy Technology*, **2015**, 3, 906-912	3.5	4
50	Stability of inverted organic solar cells with low-temperature ZnO buffer layer processed from aqueous solution. *Physica Status Solidi (A) Applications and Materials Science*, **2015**, 212, 2262-2270	1.6	6
49	Isoindigo-Based Small Molecules with Varied Donor Components for Solution-Processable Organic Field Effect Transistor Devices. *Molecules*, **2015**, 20, 17362-77	4.8	6
48	Bright red-emitting polymer dots for specific cellular imaging. *Journal of Materials Science*, **2015**, 50, 5571-5577	4.3	16
47	Efficient planar heterojunction solar cell employing CH3NH3PbI2+xCl1−x mixed halide perovskite utilizing modified sequential deposition. *Japanese Journal of Applied Physics*, **2015**, 54, 092301	1.4	3
46	Thiophene–tetrafluorophenyl–thiophene: a promising building block for ambipolar organic field effect transistors. *Journal of Materials Chemistry C*, **2015**, 3, 2080-2085	7.1	27

45	Bisindeno-annulated pentacenes with exceptionally high photo-stability and ordered molecular packing: simple synthesis by a regio-selective Scholl reaction. *Chemical Communications*, **2015**, 51, 3604-7	5.8	62
44	A work-function tunable polyelectrolyte complex (PEI:PSS) as a cathode interfacial layer for inverted organic solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 7788-7794	13	42
43	Enhanced inverted organic solar cell performance by post-treatments of solution-processed ZnO buffer layers. *RSC Advances*, **2014**, 4, 6646	3.7	34
42	Antiaromatic bisindeno-[n]thienoacenes with small singlet biradical characters: syntheses, structures and chain length dependent physical properties. *Chemical Science*, **2014**, 5, 4490-4503	9.4	53
41	Improve the operational stability of the inverted organic solar cells using bilayer metal oxide structure. *ACS Applied Materials & Interfaces*, **2014**, 6, 18861-7	9.5	15
40	Water induced zinc oxide thin film formation and its transistor performance. *Journal of Materials Chemistry C*, **2014**, 2, 5397-5403	7.1	27
39	Stable 7,14-disubstituted-5,12-dithiapentacenes with quinoidal conjugation. *Organic Letters*, **2014**, 16, 3966-9	6.2	39
38	Pyromellitic diimide-based copolymers for ambipolar field-effect transistors: Synthesis, characterization, and device applications. *Journal of Polymer Science Part A*, **2014**, 52, 2454-2464	2.5	7
37	High efficient ITO free inverted organic solar cells based on ultrathin Ca modified AZO cathode and their light soaking issue. *Organic Electronics*, **2014**, 15, 3006-3015	3.5	15
36	Improvement of transparent silver thin film anodes for organic solar cells with a decreased percolation threshold of silver. *Solar Energy Materials and Solar Cells*, **2014**, 127, 193-200	6.4	25
35	ITO-Free Semitransparent Organic Solar Cells Based on Silver Thin Film Electrodes. *International Journal of Photoenergy*, **2014**, 2014, 1-7	2.1	4
34	Efficient indium-tin-oxide free inverted organic solar cells based on aluminum-doped zinc oxide cathode and low-temperature aqueous solution processed zinc oxide electron extraction layer. *Applied Physics Letters*, **2014**, 104, 243301	3.4	7
33	Solution-processable n-type semiconductors based on unsymmetrical naphthalene imides: synthesis, characterization, and applications in field-effect transistors. *Chemistry - an Asian Journal*, **2014**, 9, 253-60	4.5	15
32	Bisacenaphthopyrazinoquinoxaline derivatives: synthesis, physical properties and applications as semiconductors for n-channel field effect transistors. *Organic and Biomolecular Chemistry*, **2013**, 11, 5683-91	3.9	4
31	TCNQ-embedded heptacene and nonacene: synthesis, characterization and physical properties. *Organic and Biomolecular Chemistry*, **2013**, 11, 6285-91	3.9	4
30	A phthalimide-fused naphthalene diimide with high electron affinity for a high performance n-channel field effect transistor. *RSC Advances*, **2013**, 3, 6775	3.7	13
29	Development of inverted organic solar cells with TiO_2 interface layer by using low-temperature atomic layer deposition. *ACS Applied Materials & Interfaces*, **2013**, 5, 713-8	9.5	108
28	TiOx/Al bilayer as cathode buffer layer for inverted organic solar cell. *Applied Physics Letters*, **2013**, 103, 173303	3.4	20

27	Efficient "light-soaking"-free inverted organic solar cells with aqueous solution processed low-temperature ZnO electron extraction layers. *ACS Applied Materials & Interfaces*, **2013**, 5, 13318-24	9.5	21
26	Effects of contact treatments on solution-processed n-type dicyano-ovalenediimide and its complementary circuits. *RSC Advances*, **2013**, 3, 8721	3.7	9
25	6,13-Dicyano pentacene-2,3:9,10-bis(dicarboximide) for solution-processed air-stable n-channel field effect transistors and complementary circuit. *Journal of Materials Chemistry C*, **2013**, 1, 456-462	7.1	27
24	Cyanated diazatetracene diimides with ultrahigh electron affinity for n-channel field effect transistors. *Organic Letters*, **2013**, 15, 1194-7	6.2	61
23	Performance Comparison of Conventional and Inverted Organic Bulk Heterojunction Solar Cells From Optical and Electrical Aspects. *IEEE Transactions on Electron Devices*, **2013**, 60, 451-457	2.9	20
22	Solution-processed LiF-doped ZnO films for high performance low temperature field effect transistors and inverted solar cells. *ACS Applied Materials & Interfaces*, **2013**, 5, 6687-93	9.5	56
21	Solution-processable n-type and ambipolar semiconductors based on a fused cyclopentadithiophenebis(dicyanovinylene) core. *Chemical Communications*, **2013**, 49, 7135-7	5.8	23
20	Controlled growth of large-area high-performance small-molecule organic single-crystalline transistors by slot-die coating using a mixed solvent system. *Advanced Materials*, **2013**, 25, 6442-7	24	108
19	Large core-expanded triazatruxene-based discotic liquid crystals: synthesis, characterization and physical properties. *Journal of Materials Chemistry*, **2012**, 22, 13180		28
18	Dithieno-naphthalimide based copolymers for air-stable field effect transistors: synthesis, characterization and device performance. *Journal of Materials Chemistry*, **2012**, 22, 21201		9
17	Linear and star-shaped pyrazine-containing acene dicarboximides with high electron-affinity. *Organic and Biomolecular Chemistry*, **2012**, 10, 7045-52	3.9	66
16	Incorporating TCNQ into thiophene-fused heptacene for n-channel field effect transistor. *Organic Letters*, **2012**, 14, 2786-9	6.2	27
15	Disc-like 7, 14-dicyano-ovalene-3,4:10,11-bis(dicarboximide) as a solution-processible n-type semiconductor for air stable field-effect transistors. *Chemical Science*, **2012**, 3, 846-850	9.4	50
14	Stepwise cyanation of naphthalene diimide for n-channel field-effect transistors. *Organic Letters*, **2012**, 14, 2964-7	6.2	80
13	Investigation of Controlled Current Matching in Polymer Tandem Solar Cells Considering Different Layer Sequences and Optical Spacer. *Japanese Journal of Applied Physics*, **2012**, 51, 122301	1.4	10
12	Thiophene-fused tetracene diimide with low band gap and ambipolar behavior. *Organic Letters*, **2011**, 13, 5960-3	6.2	71
11	A simple and efficient solar cell parameter extraction method from a single current-voltage curve. *Journal of Applied Physics*, **2011**, 110, 064504	2.5	172
10	Biodegradable poly(p-dioxanone) reinforced and toughened by organo-modified vermiculite. *Polymers for Advanced Technologies*, **2011**, 22, 993-1000	3.2	7

9	Inverted Organic Photovoltaic Cells with Solution-Processed Zinc Oxide as Electron Collecting Layer. *Japanese Journal of Applied Physics*, **2011**, 50, 082302	1.4	28
8	PROPERTIES OF POLY(p-DIOXANONE-URETHANE) COPOLYMERS WITH CONTROLLABLE STRUCTURES. *Soft Materials*, **2009**, 7, 277-295	1.7	2
7	High-Purity, Thick CsPbCl3 Films toward Selective Ultraviolet-Harvesting Visibly Transparent Photovoltaics. *ACS Applied Energy Materials*,	6.1	1
6	High-Efficiency (>14%) and Air-Stable Carbon-Based, All-Inorganic CsPbI2Br Perovskite Solar Cells through a Top-Seeded Growth Strategy. *ACS Energy Letters*,1500-1510	20.1	37
5	Impurity level properties in transition metal doped □Ga2O3 for optoelectronic applications. *Semiconductor Science and Technology*,	1.8	3
4	Double Side Interfacial Optimization for Low-Temperature Stable CsPbI2Br Perovskite Solar Cells with High Efficiency Beyond 16%. *Energy and Environmental Materials*,	13	9
3	Cs2TiI6: A potential lead-free all-inorganic perovskite material for ultrahigh-performance photovoltaic cells and alpha-particle detection. *Nano Research*,1	10	2
2	Intermediate Phase-Assisted Sequential Deposition Toward 15.24%-Efficiency Carbon-Electrode Cspbi 2 br Perovskite Solar Cells. *Solar Rrl*,2200020	7.1	3
1	Synchronous Passivation of Defects with Low Formation Energies via Terdentate Anchoring Enabling High Performance Perovskite Solar Cells with Efficiency over 24%. *Advanced Functional Materials*,2200534	15.6	14