Gang Li

List of Publications by Year in Descending Order

203 papers	56,460 citations	76 h-index	225 g-index
225 ext. papers	60,678 ext. citations	14.2 avg, IF	7.83 L-index

#	Paper	IF	Citations
203	Solution process formation of high performance, stable nanostructured transparent metal electrodes via displacement-diffusion-etch process. *Npj Flexible Electronics*, **2022**, 6,	10.7	5
202	Novel Oligomer Enables Green Solvent Processed 17.5% Ternary Organic Solar Cells: Synergistic Energy Loss Reduction and Morphology Fine-tuning.. *Advanced Materials*, **2022**, e2107659	24	14
201	Normally-OFF AlGaN/GaN MIS-HEMTs with Low RON and Vth Hysteresis by Functioning In-situ SiNx in Regrowth Process. *IEEE Electron Device Letters*, **2022**, 1-1	4.4	1
200	Copper phosphotungstate as low cost, solution-processed, stable inorganic anode interfacial material enables organic photovoltaics with over 18% efficiency. *Nano Energy*, **2022**, 94, 106923	17.1	1
199	18.42% efficiency polymer solar cells enabled by terpolymer donors with optimal miscibility and energy levels. *Journal of Materials Chemistry A*, **2022**, 10, 7878-7887	13	7
198	Manipulating Crystallization Kinetics in High-Performance Blade-Coated Perovskite Solar Cells via Cosolvent-Assisted Phase Transition.. *Advanced Materials*, **2022**, e2200276	24	11
197	Room-temperature multiple ligands-tailored SnO quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high V. *Light: Science and Applications*, **2021**, 10, 239	16.7	10
196	Efficient small-molecule donor with improved structural order and molecular aggregation enabled by side-chain modification. *Materials Reports Energy*, **2021**, 100061		
195	Uncovering the out-of-plane nanomorphology of organic photovoltaic bulk heterojunction by GTSAXS. *Nature Communications*, **2021**, 12, 6226	17.4	8
194	16% efficiency all-polymer organic solar cells enabled by a finely tuned morphology via the design of ternary blend. *Joule*, **2021**, 5, 914-930	27.8	110
193	The Challenge of Ambient Air□Processed Organometallic Halide Perovskite: Technology Transfer From Spin Coating to Meniscus Blade Coating of Perovskite Thin Films. *Frontiers in Materials*, **2021**, 8,	4	6
192	Bottom-Up Quasi-Epitaxial Growth of Hybrid Perovskite from Solution Process-Achieving High-Efficiency Solar Cells via Template -Guided Crystallization. *Advanced Materials*, **2021**, 33, e2100009	24	11
191	Eutectic phase behavior induced by a simple additive contributes to efficient organic solar cells. *Nano Energy*, **2021**, 84, 105862	17.1	18
190	Multifunctional Crosslinking-Enabled Strain-Regulating Crystallization for Stable, Efficient □FAPbI -Based Perovskite Solar Cells. *Advanced Materials*, **2021**, 33, e2008487	24	34
189	Interfacial Engineering of CuO Passivating Contact for Efficient Crystalline Silicon Solar Cells with an AlO Passivation Layer. *ACS Applied Materials & Interfaces*, **2021**, 13, 28415-28423	9.5	7
188	Multiple methoxy-substituted hole transporter for inverted perovskite solar cells. *Journal of Energy Chemistry*, **2021**, 56, 127-131	12	0
187	Low-temperature processed bipolar metal oxide charge transporting layers for highly efficient perovskite solar cells. *Solar Energy Materials and Solar Cells*, **2021**, 221, 110870	6.4	5

186	Recent progress of metal-halide perovskite-based tandem solar cells. *Materials Chemistry Frontiers*, **2021**, 5, 4538-4564	7.8	5
185	Printing High-Efficiency Perovskite Solar Cells in High-Humidity Ambient Environment-An In Situ Guided Investigation. *Advanced Science*, **2021**, 8, 2003359	13.6	15
184	Additive-induced miscibility regulation and hierarchical morphology enable 17.5% binary organic solar cells. *Energy and Environmental Science*, **2021**, 14, 3044-3052	35.4	61
183	Stretchable ITO-Free Organic Solar Cells with Intrinsic Anti-Reflection Substrate for High-Efficiency Outdoor and Indoor Energy Harvesting. *Advanced Functional Materials*, **2021**, 31, 2010172	15.6	15
182	Stable and low-photovoltage-loss perovskite solar cells by multifunctional passivation. *Nature Photonics*, **2021**, 15, 681-689	33.9	72
181	Graded bulk-heterojunction enables 17% binary organic solar cells via nonhalogenated open air coating. *Nature Communications*, **2021**, 12, 4815	17.4	28
180	Upscaling perovskite solar cells via the ambient deposition of perovskite thin films. *Trends in Chemistry*, **2021**, 3, 747-764	14.8	2
179	Sensitive, High-Speed, and Broadband Perovskite Photodetectors with Built-In TiO Metalenses. *Small*, **2021**, 17, e2102694	11	1
178	1,1-Dicyanomethylene-3-Indanone End-Cap Engineering for Fused-Ring Electron Acceptor-Based High-Performance Organic Photovoltaics. *Cell Reports Physical Science*, **2021**, 2, 100292	6.1	12
177	Perovskite Quantum Wells Formation Mechanism for Stable Efficient Perovskite Photovoltaics-A Real-Time Phase-Transition Study. *Advanced Materials*, **2021**, 33, e2006238	24	11
176	Reducing VOC loss via structure compatible and high lowest unoccupied molecular orbital nonfullerene acceptors for over 17%-efficiency ternary organic photovoltaics. *EcoMat*, **2020**, 2, e12061	9.4	15
175	Benzodithiophene-Based Small-Molecule Donors for Next-Generation All-Small-Molecule Organic Photovoltaics. *Matter*, **2020**, 3, 1403-1432	12.7	45
174	A Novel Wide-Bandgap Polymer with Deep Ionization Potential Enables Exceeding 16% Efficiency in Ternary Nonfullerene Polymer Solar Cells. *Advanced Functional Materials*, **2020**, 30, 1910466	15.6	36
173	Efficient Flexible Perovskite Solar Cells Using Low-Cost Cu Top and Bottom Electrodes. *ACS Applied Materials & Interfaces*, **2020**, 12, 26050-26059	9.5	20
172	Concurrent improvement in JSC and VOC in high-efficiency ternary organic solar cells enabled by a red-absorbing small-molecule acceptor with a high LUMO level. *Energy and Environmental Science*, **2020**, 13, 2115-2123	35.4	115
171	Delicate Morphology Control Triggers 14.7% Efficiency All-Small-Molecule Organic Solar Cells. *Advanced Energy Materials*, **2020**, 10, 2001076	21.8	70
170	Synergy of Liquid-Crystalline Small-Molecule and Polymeric Donors Delivers Uncommon Morphology Evolution and 16.6% Efficiency Organic Photovoltaics. *Advanced Science*, **2020**, 7, 2000149	13.6	41
169	Efficient modulation of end groups for the asymmetric small molecule acceptors enabling organic solar cells with over 15% efficiency. *Journal of Materials Chemistry A*, **2020**, 8, 5927-5935	13	23

168	Recent progress of all-polymer solar cells □From chemical structure and device physics to photovoltaic performance. *Materials Science and Engineering Reports*, **2020**, 140, 100542	30.9	49
167	Recent progress in morphology optimization in perovskite solar cell. *Journal of Materials Chemistry A*, **2020**, 8, 21356-21386	13	76
166	Fluorinated oligothiophene donors for high-performance nonfullerene small-molecule organic solar cells. *Sustainable Energy and Fuels*, **2020**, 4, 2680-2685	5.8	8
165	Nucleation and crystal growth control for scalable solution-processed organic□inorganic hybrid perovskite solar cells. *Journal of Materials Chemistry A*, **2020**, 8, 1578-1603	13	64
164	Chalcogen-Fused Perylene Diimides-Based Nonfullerene Acceptors for High-Performance Organic Solar Cells: Insight into the Effect of O, S, and Se. *Solar Rrl*, **2020**, 4, 1900453	7.1	13
163	Deciphering the Role of Fluorination: Morphological Manipulation Prompts Charge Separation and Reduces Carrier Recombination in All-Small-Molecule Photovoltaics. *Solar Rrl*, **2020**, 4, 1900528	7.1	21
162	Room Temperature Formation of Semiconductor Grade □FAPbI3 Films for Efficient Perovskite Solar Cells. *Cell Reports Physical Science*, **2020**, 1, 100205	6.1	5
161	Zwitterionic-Surfactant-Assisted Room-Temperature Coating of Efficient Perovskite Solar Cells. *Joule*, **2020**, 4, 2404-2425	27.8	65
160	Excited-State Symmetry-Breaking Charge Separation Dynamics in Multibranched Perylene Diimide Molecules. *Journal of Physical Chemistry Letters*, **2020**, 11, 10329-10339	6.4	25
159	Size Modulation and Heterovalent Doping Facilitated Hybrid Organic and Perovskite Quantum Dot Bulk Heterojunction Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 11359-11367	6.1	10
158	Enhancing Open-Circuit Voltage of High-Efficiency Nonfullerene Ternary Solar Cells with a Star-Shaped Acceptor. *ACS Applied Materials & Interfaces*, **2020**, 12, 50660-50667	9.5	6
157	Functional Third Components in Nonfullerene Acceptor-Based Ternary Organic Solar Cells. *Accounts of Materials Research*, **2020**, 1, 158-171	7.5	26
156	Precise Control of Perovskite Crystallization Kinetics via Sequential A-Site Doping. *Advanced Materials*, **2020**, 32, e2004630	24	56
155	A Spirobixanthene-Based Dendrimeric Hole-Transporting Material for Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 1900367	7.1	6
154	ITC-2Cl: A Versatile Middle-Bandgap Nonfullerene Acceptor for High-Efficiency Panchromatic Ternary Organic Solar Cells. *Solar Rrl*, **2020**, 4, 1900377	7.1	20
153	Efficient Slantwise Aligned Dion-Jacobson Phase Perovskite Solar Cells Based on Trans-1,4-Cyclohexanediamine. *Small*, **2020**, 16, e2003098	11	20
152	Lead-Free Antimony-Based Light-Emitting Diodes through the Vapor-Anion-Exchange Method. *ACS Applied Materials & Interfaces*, **2019**, 11, 35088-35094	9.5	42
151	Combining Fused-Ring and Unfused-Core Electron Acceptors Enables Efficient Ternary Organic Solar Cells with Enhanced Fill Factor and Broad Compositional Tolerance. *Solar Rrl*, **2019**, 3, 1900317	7.1	24

150	Ag-Doped Halide Perovskite Nanocrystals for Tunable Band Structure and Efficient Charge Transport. *ACS Energy Letters*, **2019**, 4, 534-541	20.1	63
149	Potassium-intercalated rubrene as a dual-functional passivation agent for high efficiency perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 1824-1834	13	46
148	Stabilizer-assisted growth of formamdinium-based perovskites for highly efficient and stable planar solar cells with over 22% efficiency. *Nano Energy*, **2019**, 63, 103835	17.1	38
147	Vacuum-free fabrication of high-performance semitransparent perovskite solar cells via e-glue assisted lamination process. *Science China Chemistry*, **2019**, 62, 875-882	7.9	6
146	Design of wide-bandgap polymers with deeper ionization potential enables efficient ternary non-fullerene polymer solar cells with 13% efficiency. *Journal of Materials Chemistry A*, **2019**, 7, 14153-14162	13	21
145	Charge carrier transport and nanomorphology control for efficient non-fullerene organic solar cells. *Materials Today Energy*, **2019**, 12, 398-407	7	20
144	Manipulating the Mixed-Perovskite Crystallization Pathway Unveiled by In Situ GIWAXS. *Advanced Materials*, **2019**, 31, e1901284	24	84
143	Room-Temperature Meniscus Coating of >20% Perovskite Solar Cells: A Film Formation Mechanism Investigation. *Advanced Functional Materials*, **2019**, 29, 1900092	15.6	59
142	Facile synthesis of composite tin oxide nanostructures for high-performance planar perovskite solar cells. *Nano Energy*, **2019**, 60, 275-284	17.1	43
141	Methane-perylene diimide-based small molecule acceptors for high efficiency non-fullerene organic solar cells. *Journal of Materials Chemistry C*, **2019**, 7, 10901-10907	7.1	11
140	Observing electron transport and percolation in selected bulk heterojunctions bearing fullerene derivatives, non-fullerene small molecules, and polymeric acceptors. *Nano Energy*, **2019**, 64, 103950	17.1	25
139	Enhanced Electron Transport and Heat Transfer Boost Light Stability of Ternary Organic Photovoltaic Cells Incorporating Non-Fullerene Small Molecule and Polymer Acceptors. *Advanced Electronic Materials*, **2019**, 5, 1900497	6.4	30
138	Simple Is Best: A -Phenylene Bridging Methoxydiphenylamine-Substituted Carbazole Hole Transporter for High-Performance Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2019**, 11, 30065-30071	9.5	29
137	Vitrification Transformation of Poly(Ethylene Oxide) Activating Interface Passivation for High-Efficiency Perovskite Solar Cells. *Solar Rrl*, **2019**, 3, 1900134	7.1	24
136	Chlorination Strategy-Induced Abnormal Nanomorphology Tuning in High-Efficiency Organic Solar Cells: A Study of Phenyl-Substituted Benzodithiophene-Based Nonfullerene Acceptors. *Solar Rrl*, **2019**, 3, 1900262	7.1	15
135	Donor Derivative Incorporation: An Effective Strategy toward High Performance All-Small-Molecule Ternary Organic Solar Cells. *Advanced Science*, **2019**, 6, 1901613	13.6	62
134	Highly Crystalline Near-Infrared Acceptor Enabling Simultaneous Efficiency and Photostability Boosting in High-Performance Ternary Organic Solar Cells. *ACS Applied Materials & Interfaces*, **2019**, 11, 48095-48102	9.5	23
133	Investigation of low-bandgap nonfullerene acceptor-based polymer solar cells with very low photovoltage loss. *Journal of Photonics for Energy*, **2019**, 9, 1	1.2	6

132	Interface Manipulation in Solution Processed Hybrid Perovskite Solar Cells **2019**,		1
131	Functionalizing tetraphenylpyrazine with perylene diimides (PDIs) as high-performance nonfullerene acceptors. *Journal of Materials Chemistry C*, **2019**, 7, 14563-14570	7.1	6
130	Nanomorphology in ADA type small molecular acceptors-based bulk heterojunction polymer solar cells. *Journal of Energy Chemistry*, **2019**, 35, 104-123	12	19
129	Next-generation organic photovoltaics based on non-fullerene acceptors. *Nature Photonics*, **2018**, 12, 131-142	33.9	1155
128	Effective Carrier-Concentration Tuning of SnO Quantum Dot Electron-Selective Layers for High-Performance Planar Perovskite Solar Cells. *Advanced Materials*, **2018**, 30, e1706023	24	245
127	Tin oxide (SnO2) as effective electron selective layer material in hybrid organic–inorganic metal halide perovskite solar cells. *Journal of Energy Chemistry*, **2018**, 27, 962-970	12	32
126	Stable and Efficient Organo-Metal Halide Hybrid Perovskite Solar Cells via π-Conjugated Lewis Base Polymer Induced Trap Passivation and Charge Extraction. *Advanced Materials*, **2018**, 30, e1706126	24	192
125	Lead Halide Perovskite Based Microdisk Lasers for On-Chip Integrated Photonic Circuits. *Advanced Optical Materials*, **2018**, 6, 1701266	8.1	36
124	Photovoltaic Performance of Vapor-Assisted Solution-Processed Layer Polymorph of CsSbI. *ACS Applied Materials & Interfaces*, **2018**, 10, 2566-2573	9.5	84
123	High-Performance Organic Bulk-Heterojunction Solar Cells Based on Multiple-Donor or Multiple-Acceptor Components. *Advanced Materials*, **2018**, 30, 1705706	24	124
122	A Lewis Base-Assisted Passivation Strategy Towards Highly Efficient and Stable Perovskite Solar Cells. *Solar Rrl*, **2018**, 2, 1800055	7.1	63
121	A novel ball milling technique for room temperature processing of TiO2 nanoparticles employed as the electron transport layer in perovskite solar cells and modules. *Journal of Materials Chemistry A*, **2018**, 6, 7114-7122	13	26
120	Strategies for Growing Perovskite Films on Nanostructured TiO2 for High Performance Solar Cell **2018**,		2
119	Transparent Polymer Photovoltaics for Solar Energy Harvesting and Beyond. *Joule*, **2018**, 2, 1039-1054	27.8	137
118	Non-fullerene acceptor engineering with three-dimensional thiophene/selenophene-annulated perylene diimides for high performance polymer solar cells. *Journal of Materials Chemistry C*, **2018**, 6, 12601-12607	7.1	18
117	Pyran-annulated perylene diimide derivatives as non-fullerene acceptors for high performance organic solar cells. *Journal of Materials Chemistry C*, **2018**, 6, 11111-11117	7.1	13
116	A Cryogenic Process for Antisolvent-Free High-Performance Perovskite Solar Cells. *Advanced Materials*, **2018**, 30, e1804402	24	39
115	Abnormal Synergetic Effect of Organic and Halide Ions on the Stability and Optoelectronic Properties of a Mixed Perovskite via In Situ Characterizations. *Advanced Materials*, **2018**, 30, e1801562	24	41

114	Conjugated Polymer-Based Solar Cells **2018**, 256-269		0
113	Single phase, high hole mobility Cu2O films as an efficient and robust hole transporting layer for organic solar cells. *Journal of Materials Chemistry A*, **2017**, 5, 11055-11062	13	47
112	Transition metal oxides as hole-transporting materials in organic semiconductor and hybrid perovskite based solar cells. *Science China Chemistry*, **2017**, 60, 472-489	7.9	34
111	Solution-processable antimony-based light-absorbing materials beyond lead halide perovskites. *Journal of Materials Chemistry A*, **2017**, 5, 20843-20850	13	118
110	High-Efficiency Organic Tandem Solar Cells With Effective Transition Metal Chelates Interconnecting Layer. *Solar Rrl*, **2017**, 1, 1700139	7.1	15
109	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
108	Low-bandgap conjugated polymers enabling solution-processable tandem solar cells. *Nature Reviews Materials*, **2017**, 2,	73.3	229
107	High-Performance Rigid and Flexible Perovskite Solar Cells with Low-Temperature Solution-Processable Binary Metal Oxide Hole-Transporting Materials. *Solar Rrl*, **2017**, 1, 1700058	7.1	54
106	Transient Magnetophotoinduced Absorption Studies of Photoexcitations in Conjugated Donor-Acceptor Copolymers. *Physical Review Letters*, **2017**, 119, 017401	7.4	19
105	Pure Formamidinium-Based Perovskite Light-Emitting Diodes with High Efficiency and Low Driving Voltage. *Advanced Materials*, **2017**, 29, 1603826	24	145
104	Single Crystal Formamidinium Lead Iodide (FAPbI3): Insight into the Structural, Optical, and Electrical Properties. *Advanced Materials*, **2016**, 28, 2253-8	24	578
103	High-efficiency robust perovskite solar cells on ultrathin flexible substrates. *Nature Communications*, **2016**, 7, 10214	17.4	444
102	Printable Solar Cells from Advanced Solution-Processible Materials. *CheM*, **2016**, 1, 197-219	16.2	50
101	Inverted Planar Structure of Perovskite Solar Cells **2016**, 307-324		1
100	10.5% efficient polymer and amorphous silicon hybrid tandem photovoltaic cell. *Nature Communications*, **2015**, 6, 6391	17.4	38
99	Transient measurements of carrier relaxation time and density in the P3HT:PCBM organic photovoltaic cell. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2015**, 33, 032404	1.3	1
98	One-step, low-temperature deposited perovskite solar cell utilizing small molecule additive. *Journal of Photonics for Energy*, **2015**, 5, 057405	1.2	41
97	Tandem Solar Cell Concept and Practice in Organic Solar Cells. *Topics in Applied Physics*, **2015**, 315-346	0.5	6

96	Ionizing radiation induced parametric variations in P3HT:PCBM organic photovoltaic cells. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2015**, 33, 032403	1.3	7
95	Low-Bandgap Near-IR Conjugated Polymers/Molecules for Organic Electronics. *Chemical Reviews*, **2015**, 115, 12633-65	68.1	863
94	Integrated perovskite/bulk-heterojunction toward efficient solar cells. *Nano Letters*, **2015**, 15, 662-8	11.5	129
93	Roll-to-Roll Production of Graphene Hybrid Electrodes for High-Efficiency, Flexible Organic Photoelectronics. *Advanced Materials Interfaces*, **2015**, 2, 1500445	4.6	27
92	High-performance multiple-donor bulk heterojunction solar cells. *Nature Photonics*, **2015**, 9, 190-198	33.9	440
91	A Selenophene Containing Benzodithiophene-alt-thienothiophene Polymer for Additive-Free High Performance Solar Cell. *Macromolecules*, **2015**, 48, 562-568	5.5	52
90	Perovskite/polymer monolithic hybrid tandem solar cells utilizing a low-temperature, full solution process. *Materials Horizons*, **2015**, 2, 203-211	14.4	127
89	Planar heterojunction perovskite solar cells via vapor-assisted solution process. *Journal of the American Chemical Society*, **2014**, 136, 622-5	16.4	1921
88	Solution-processed hybrid perovskite photodetectors with high detectivity. *Nature Communications* , **2014**, 5, 5404	17.4	1749
87	Photovoltaics. Interface engineering of highly efficient perovskite solar cells. *Science*, **2014**, 345, 542-6	33.3	5272
86	Immiscible solvents enabled nanostructure formation for efficient polymer photovoltaic cells. *Nanotechnology*, **2014**, 25, 295401	3.4	6
85	The study of solvent additive effects in efficient polymer photovoltaics via impedance spectroscopy. *Solar Energy Materials and Solar Cells*, **2014**, 130, 20-26	6.4	65
84	Nanoscale Joule heating and electromigration enhanced ripening of silver nanowire contacts. *ACS Nano*, **2014**, 8, 2804-11	16.7	251
83	Electronic Structure and Transition Energies in Polymer–Fullerene Bulk Heterojunctions. *Journal of Physical Chemistry C*, **2014**, 118, 21873-21883	3.8	44
82	Improving Structural Order for a High-Performance Diketopyrrolopyrrole-Based Polymer Solar Cell with a Thick Active Layer. *Advanced Energy Materials*, **2014**, 4, 1300739	21.8	39
81	Band tail recombination in polymer:fullerene organic solar cells. *Journal of Applied Physics*, **2014**, 116, 074503	2.5	45
80	Fullerene C70 as a p-type donor in organic photovoltaic cells. *Applied Physics Letters*, **2014**, 105, 093301	3.4	12
79	Moisture assisted perovskite film growth for high performance solar cells. *Applied Physics Letters*, **2014**, 105, 183902	3.4	598

78	Elucidating double aggregation mechanisms in the morphology optimization of diketopyrrolopyrrole-based narrow bandgap polymer solar cells. *Advanced Materials*, **2014**, 26, 3142-7	24	47
77	High-performance semi-transparent polymer solar cells possessing tandem structures. *Energy and Environmental Science*, **2013**, 6, 2714	35.4	154
76	Solution-processed small-molecule solar cells: breaking the 10% power conversion efficiency. *Scientific Reports*, **2013**, 3, 3356	4.9	511
75	The investigation of donor-acceptor compatibility in bulk-heterojunction polymer systems. *Applied Physics Letters*, **2013**, 103, 043304	3.4	39
74	25th anniversary article: a decade of organic/polymeric photovoltaic research. *Advanced Materials*, **2013**, 25, 6642-71	24	978
73	A polymer tandem solar cell with 10.6% power conversion efficiency. *Nature Communications*, **2013**, 4, 1446	17.4	2456
72	Recent trends in polymer tandem solar cells research. *Progress in Polymer Science*, **2013**, 38, 1909-1928	29.6	232
71	10.2% power conversion efficiency polymer tandem solar cells consisting of two identical sub-cells. *Advanced Materials*, **2013**, 25, 3973-8	24	403
70	Relating Recombination, Density of States, and Device Performance in an Efficient Polymer:Fullerene Organic Solar Cell Blend. *Advanced Energy Materials*, **2013**, 3, 1201-1209	21.8	81
69	Solution-processed small molecules using different electron linkers for high-performance solar cells. *Advanced Materials*, **2013**, 25, 4657-62	24	92
68	High performance low band gap polymer solar cells with a non-conventional acceptor. *Chemical Communications*, **2012**, 48, 7616-8	5.8	31
67	Modeling of the X-irradiation Response of the Carrier Relaxation Time in P3HT:PCBM Organic-Based Photocells. *IEEE Transactions on Nuclear Science*, **2012**, 59, 2902-2908	1.7	7
66	Systematic investigation of benzodithiophene- and diketopyrrolopyrrole-based low-bandgap polymers designed for single junction and tandem polymer solar cells. *Journal of the American Chemical Society*, **2012**, 134, 10071-9	16.4	504
65	Polymer solar cells. *Nature Photonics*, **2012**, 6, 153-161	33.9	3621
64	Tandem polymer solar cells featuring a spectrally matched low-bandgap polymer. *Nature Photonics*, **2012**, 6, 180-185	33.9	1299
63	Visibly transparent polymer solar cells produced by solution processing. *ACS Nano*, **2012**, 6, 7185-90	16.7	434
62	Novel fullerene acceptors: synthesis and application in low band gap polymer solar cells. *Journal of Materials Chemistry*, **2012**, 22, 13391		30
61	Electrostatic Self-Assembly Conjugated Polyelectrolyte-Surfactant Complex as an Interlayer for High Performance Polymer Solar Cells. *Advanced Functional Materials*, **2012**, 22, 3284-3289	15.6	95

60	Metal oxide nanoparticles as an electron-transport layer in high-performance and stable inverted polymer solar cells. *Advanced Materials*, **2012**, 24, 5267-72	24	299
59	Surface Plasmon and Scattering-Enhanced Low-Bandgap Polymer Solar Cell by a Metal Grating Back Electrode. *Advanced Energy Materials*, **2012**, 2, 1203-1207	21.8	152
58	Plastic solar cells: breaking the 10% commercialization barrier **2012**,		5
57	Fused silver nanowires with metal oxide nanoparticles and organic polymers for highly transparent conductors. *ACS Nano*, **2011**, 5, 9877-82	16.7	326
56	Synthesis of fluorinated polythienothiophene-co-benzodithiophenes and effect of fluorination on the photovoltaic properties. *Journal of the American Chemical Society*, **2011**, 133, 1885-94	16.4	523
55	Intermediate Layers in Tandem Organic Solar Cells. *Green*, **2011**, 1,		37
54	Improving Polymer Solar Cell Through Efficient Solar Energy Harvesting. *Green Energy and Technology*, **2010**, 199-236	0.6	
53	High-efficiency solution processable polymer photovoltaic cells by self-organization of polymer blends **2010**, 80-84		13
52	Origin of Radiation-Induced Degradation in Polymer Solar Cells. *Advanced Functional Materials*, **2010**, 20, 2729-2736	15.6	63
51	Highly efficient tandem polymer photovoltaic cells. *Advanced Materials*, **2010**, 22, 380-3	24	304
50	For the bright future-bulk heterojunction polymer solar cells with power conversion efficiency of 7.4%. *Advanced Materials*, **2010**, 22, E135-8	24	3299
49	Transparent Solar Cells Based on Organic Polymers **2010**, 343-372		
48	Vertical Phase Separation in Poly(3-hexylthiophene): Fullerene Derivative Blends and its Advantage for Inverted Structure Solar Cells. *Advanced Functional Materials*, **2009**, 19, 1227-1234	15.6	628
47	Doping of the Metal Oxide Nanostructure and its Influence in Organic Electronics. *Advanced Functional Materials*, **2009**, 19, 1241-1246	15.6	156
46	Recent Progress in Polymer Solar Cells: Manipulation of Polymer:Fullerene Morphology and the Formation of Efficient Inverted Polymer Solar Cells. *Advanced Materials*, **2009**, 21, 1434-1449	24	1142
45	Polymer solar cells with enhanced open-circuit voltage and efficiency. *Nature Photonics*, **2009**, 3, 649-653	33.9	2870
44	Development of new semiconducting polymers for high performance solar cells. *Journal of the American Chemical Society*, **2009**, 131, 56-7	16.4	853
43	Synthesis of a low band gap polymer and its application in highly efficient polymer solar cells. *Journal of the American Chemical Society*, **2009**, 131, 15586-7	16.4	673

42	Highly efficient solar cell polymers developed via fine-tuning of structural and electronic properties. *Journal of the American Chemical Society*, **2009**, 131, 7792-9	16.4	1261
41	Fast-Grown Interpenetrating Network in Poly(3-hexylthiophene): Methanofullerenes Solar Cells Processed with Additive. *Journal of Physical Chemistry C*, **2009**, 113, 7946-7953	3.8	169
40	Energy level alignment of poly(3-hexylthiophene): [6,6]-phenyl C61 butyric acid methyl ester bulk heterojunction. *Applied Physics Letters*, **2009**, 95, 013301	3.4	138
39	High efficiency polymer solar cells with vertically modulated nanoscale morphology. *Nanotechnology*, **2009**, 20, 165202	3.4	111
38	Synthesis, characterization, and photovoltaic properties of a low band gap polymer based on silole-containing polythiophenes and 2,1,3-benzothiadiazole. *Journal of the American Chemical Society*, **2008**, 130, 16144-5	16.4	1051
37	Highly efficient inverted polymer solar cell by low temperature annealing of Cs2CO3 interlayer. *Applied Physics Letters*, **2008**, 92, 173303	3.4	419
36	Measurement issues of organic solar cell **2008**,		3
35	A photoelectron spectroscopy study of tunable charge injection barrier between metal/organic interface. *Applied Physics Letters*, **2008**, 93, 023302	3.4	4
34	Radiation induced damage and recovery in poly(3-hexyl thiophene) based polymer solar cells. *Nanotechnology*, **2008**, 19, 424014	3.4	28
33	Control of the nanoscale crystallinity and phase separation in polymer solar cells. *Applied Physics Letters*, **2008**, 92, 103306	3.4	183
32	Effects of Solvent Mixtures on the Nanoscale Phase Separation in Polymer Solar Cells. *Advanced Functional Materials*, **2008**, 18, 1783-1789	15.6	614
31	A Semi-transparent Plastic Solar Cell Fabricated by a Lamination Process. *Advanced Materials*, **2008**, 20, 415-419	24	283
30	Solvent Annealing Effect in Polymer Solar Cells Based on Poly(3-hexylthiophene) and Methanofullerenes. *Advanced Functional Materials*, **2007**, 17, 1636-1644	15.6	1036
29	Vertical organic light emitting transistor. *Applied Physics Letters*, **2007**, 91, 092911	3.4	55
28	Manipulating regioregular poly(3-hexylthiophene) : [6,6]-phenyl-C61-butyric acid methyl ester blends Route towards high efficiency polymer solar cells. *Journal of Materials Chemistry*, **2007**, 17, 3126		338
27	Accurate Measurement and Characterization of Organic Solar Cells. *Advanced Functional Materials*, **2006**, 16, 2016-2023	15.6	464
26	Achieving High-Efficiency Polymer White-Light-Emitting Devices. *Advanced Materials*, **2006**, 18, 114-117	24	384
25	Tandem stacking structure for polymer solar cells by using semi-transparent electrodes **2006**, 6334, 170		

24	Effects of C70 derivative in low band gap polymer photovoltaic devices: Spectral complementation and morphology optimization. *Applied Physics Letters*, **2006**, 89, 153507	3.4	103
23	Combinatorial study of exciplex formation at the interface between two wide band gap organic semiconductors. *Applied Physics Letters*, **2006**, 88, 253505	3.4	28
22	Transition metal oxides as the buffer layer for polymer photovoltaic cells. *Applied Physics Letters*, **2006**, 88, 073508	3.4	877
21	Efficient light harvesting in multiple-device stacked structure for polymer solar cells. *Applied Physics Letters*, **2006**, 88, 064104	3.4	182
20	Tuning acceptor energy level for efficient charge collection in copper-phthalocyanine-based organic solar cells. *Applied Physics Letters*, **2006**, 88, 153504	3.4	125
19	Efficient inverted polymer solar cells. *Applied Physics Letters*, **2006**, 88, 253503	3.4	684
18	Improving the power efficiency of white light-emitting diode by doping electron transport material. *Applied Physics Letters*, **2006**, 89, 133509	3.4	81
17	Effect of self-organization in polymer/fullerene bulk heterojunctions on solar cell performance. *Applied Physics Letters*, **2006**, 89, 063505	3.4	306
16	Electroluminescence-detected magnetic resonance studies of Pt octaethyl porphyrin-based phosphorescent organic light-emitting devices. *Physical Review B*, **2005**, 71,	3.3	18
15	Investigation of annealing effects and film thickness dependence of polymer solar cells based on poly(3-hexylthiophene). *Journal of Applied Physics*, **2005**, 98, 043704	2.5	661
14	. *Journal of Display Technology*, **2005**, 1, 105-111		10
13	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	3.4	113
12	Absorption spectra modification in poly(3-hexylthiophene):methanofullerene blend thin films. *Chemical Physics Letters*, **2005**, 411, 138-143	2.5	251
11	High-efficiency solution processable polymer photovoltaic cells by self-organization of polymer blends. *Nature Materials*, **2005**, 4, 864-868	27	4965
10	Effective Color Tuning in Organic Light-Emitting Diodes Based on Aluminum Tris(5-aryl-8-hydroxyquinoline) Complexes. *Advanced Materials*, **2004**, 16, 2001-2003	24	112
9	On the mechanism of conductivity enhancement in poly(3,4-ethylenedioxythiophene):poly(styrene sulfonate) film through solvent treatment. *Polymer*, **2004**, 45, 8443-8450	3.9	983
8	Electrical transport in amorphous semiconducting AlMgB14 films. *Applied Physics Letters*, **2004**, 85, 1181-1183	3.4	24
7	Magnetic resonance studies of tris-(8-hydroxyquinoline) aluminum-based organic light-emitting devices. *Physical Review B*, **2004**, 69,	3.3	38

6	Combinatorial fabrication and studies of bright white organic light-emitting devices based on emission from rubrene-doped 4,4?-bis(2,2?-diphenylvinyl)-1,1?-biphenyl. *Applied Physics Letters*, **2003**, 83, 5359-5361	3.4	149
5	All-polymer solar cells with over 16% efficiency and enhanced stability enabled by compatible solvent and polymer additives. *Aggregate*,e58	22.9	31
4	Air-Processed Efficient Organic Solar Cells from Aromatic Hydrocarbon Solvent without Solvent Additive or Post-Treatment: Insights into Solvent Effect on Morphology. *Energy and Environmental Materials*,	13	19
3	Progress in Organic Photodiodes through Physical Process Insights. *Advanced Energy and Sustainability Research*,2200002	1.6	1
2	Emerging Strategies toward Mechanically Robust Organic Photovoltaics: Focus on Active Layer. *Advanced Energy Materials*,2201087	21.8	5
1	Diammonium mediated perovskite film formation for high-luminescence red perovskite light-emitting diodes. *Advanced Materials*,2202042	24	3