

# Jin Young Kim

## List of Publications by Citations

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255  
papers

17,235  
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58  
h-index

127  
g-index

261  
ext. papers

19,640  
ext. citations

10.4  
avg, IF

6.65  
L-index

#	Paper	IF	Citations
255	Efficient tandem polymer solar cells fabricated by all-solution processing. <i>Science</i> , <b>2007</b> , 317, 222-5	33.3	2957
254	Processing additives for improved efficiency from bulk heterojunction solar cells. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 3619-23	16.4	1434
253	Pseudo-halide anion engineering for FAPbI perovskite solar cells. <i>Nature</i> , <b>2021</b> , 592, 381-385	50.4	814
252	Methylammonium Chloride Induces Intermediate Phase Stabilization for Efficient Perovskite Solar Cells. <i>Joule</i> , <b>2019</b> , 3, 2179-2192	27.8	780
251	High-Performance Solution-Processed Non-Fullerene Organic Solar Cells Based on Selenophene-Containing Perylene Bisimide Acceptor. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 375-80	16.4	579
250	Versatile surface plasmon resonance of carbon-dot-supported silver nanoparticles in polymer optoelectronic devices. <i>Nature Photonics</i> , <b>2013</b> , 7, 732-738	33.9	447
249	Cesium-doped methylammonium lead iodide perovskite light absorber for hybrid solar cells. <i>Nano Energy</i> , <b>2014</b> , 7, 80-85	17.1	381
248	25th anniversary article: Colloidal quantum dot materials and devices: a quarter-century of advances. <i>Advanced Materials</i> , <b>2013</b> , 25, 4986-5010	24	369
247	Boosting the power conversion efficiency of perovskite solar cells using self-organized polymeric hole extraction layers with high work function. <i>Advanced Materials</i> , <b>2014</b> , 26, 6461-6	24	295
246	Small-bandgap polymer solar cells with unprecedented short-circuit current density and high fill factor. <i>Advanced Materials</i> , <b>2015</b> , 27, 3318-24	24	275
245	Mixed solvents for the optimization of morphology in solution-processed, inverted-type perovskite/fullerene hybrid solar cells. <i>Nanoscale</i> , <b>2014</b> , 6, 6679-83	7.7	255
244	Conjugated polyelectrolyte hole transport layer for inverted-type perovskite solar cells. <i>Nature Communications</i> , <b>2015</b> , 6, 7348	17.4	248
243	Efficient, stable silicon tandem cells enabled by anion-engineered wide-bandgap perovskites. <i>Science</i> , <b>2020</b> , 368, 155-160	33.3	240
242	Combination of titanium oxide and a conjugated polyelectrolyte for high-performance inverted-type organic optoelectronic devices. <i>Advanced Materials</i> , <b>2011</b> , 23, 2759-63	24	235
241	Multipositional silica-coated silver nanoparticles for high-performance polymer solar cells. <i>Nano Letters</i> , <b>2013</b> , 13, 2204-8	11.5	230
240	Effect of the Molecular Weight of Poly(3-hexylthiophene) on the Morphology and Performance of Polymer Bulk Heterojunction Solar Cells. <i>Macromolecular Rapid Communications</i> , <b>2007</b> , 28, 1776-1780	4.8	221
239	Alkyl Side-Chain Engineering in Wide-Bandgap Copolymers Leading to Power Conversion Efficiencies over 10. <i>Advanced Materials</i> , <b>2017</b> , 29, 1604251	24	199

238	Functionalized methanofullerenes used as n-type materials in bulk-heterojunction polymer solar cells and in field-effect transistors. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 6444-50	16.4	195
237	Highly controllable transparent and conducting thin films using layer-by-layer assembly of oppositely charged reduced graphene oxides. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 3438-3442		181
236	Conformal quantum dot-SnO layers as electron transporters for efficient perovskite solar cells.. <i>Science</i> , <b>2022</b> , 375, 302-306	33.3	181
235	High-Efficiency Colloidal Quantum Dot Photovoltaics via Robust Self-Assembled Monolayers. <i>Nano Letters</i> , <b>2015</b> , 15, 7691-6	11.5	175
234	Capillary Printing of Highly Aligned Silver Nanowire Transparent Electrodes for High-Performance Optoelectronic Devices. <i>Nano Letters</i> , <b>2015</b> , 15, 7933-42	11.5	165
233	Ternary Organic Solar Cells Based on Two Highly Efficient Polymer Donors with Enhanced Power Conversion Efficiency. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1502109	21.8	141
232	Amine-based polar solvent treatment for highly efficient inverted polymer solar cells. <i>Advanced Materials</i> , <b>2014</b> , 26, 494-500	24	139
231	Interplay of Intramolecular Noncovalent Coulomb Interactions for Semicrystalline Photovoltaic Polymers. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 5997-6007	9.6	132
230	High-performance organic optoelectronic devices enhanced by surface plasmon resonance. <i>Advanced Materials</i> , <b>2011</b> , 23, 5689-93	24	132
229	High-efficiency polymer solar cells with a cost-effective quinoxaline polymer through nanoscale morphology control induced by practical processing additives. <i>Energy and Environmental Science</i> , <b>2013</b> , 6, 1909	35.4	129
228	Highly efficient polymer light-emitting diodes using graphene oxide as a hole transport layer. <i>ACS Nano</i> , <b>2012</b> , 6, 2984-91	16.7	113
227	Enhanced efficiency of single and tandem organic solar cells incorporating a diketopyrrolopyrrole-based low-bandgap polymer by utilizing combined ZnO/polyelectrolyte electron-transport layers. <i>Advanced Materials</i> , <b>2013</b> , 25, 4783-8	24	109
226	Poly(fluorenevinylene) Derivative by Gilch Polymerization for Light-Emitting Diode Applications. <i>Macromolecules</i> , <b>2002</b> , 35, 7532-7534	5.5	107
225	Double-Sided Junctions Enable High-Performance Colloidal-Quantum-Dot Photovoltaics. <i>Advanced Materials</i> , <b>2016</b> , 28, 4142-8	24	100
224	A Selenophene Analogue of PCDTBT: Selective Fine-Tuning of LUMO to Lower of the Bandgap for Efficient Polymer Solar Cells. <i>Macromolecules</i> , <b>2012</b> , 45, 8658-8664	5.5	100
223	High-Temperature-Short-Time Annealing Process for High-Performance Large-Area Perovskite Solar Cells. <i>ACS Nano</i> , <b>2017</b> , 11, 6057-6064	16.7	99
222	Graphene oxide nanoribbon as hole extraction layer to enhance efficiency and stability of polymer solar cells. <i>Advanced Materials</i> , <b>2014</b> , 26, 786-90	24	94
221	Semicrystalline D <sub>A</sub> Copolymers with Different Chain Curvature for Applications in Polymer Optoelectronic Devices. <i>Macromolecules</i> , <b>2014</b> , 47, 1604-1612	5.5	87

220	Fluorine Functionalized Graphene Nano Platelets for Highly Stable Inverted Perovskite Solar Cells. <i>Nano Letters</i> , <b>2017</b> , 17, 6385-6390	11.5	84
219	An organic surface modifier to produce a high work function transparent electrode for high performance polymer solar cells. <i>Advanced Materials</i> , <b>2015</b> , 27, 892-6	24	81
218	Surface modification of metal oxide using ionic liquid molecules in hybrid organic/organic optoelectronic devices. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 2051		80
217	Investigation of Charge Carrier Behavior in High Performance Ternary Blend Polymer Solar Cells. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1600637	21.8	79
216	Synthesis of PCDTBT-based fluorinated polymers for high open-circuit voltage in organic photovoltaics: towards an understanding of relationships between polymer energy levels engineering and ideal morphology control. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 7523-34	9.5	79
215	Silver-Based Nanoparticles for Surface Plasmon Resonance in Organic Optoelectronics. <i>Particle and Particle Systems Characterization</i> , <b>2015</b> , 32, 164-175	3.1	79
214	Synthesis and Electroluminescence Properties of Poly(9,9-di-n-octylfluorenyl-2,7-vinylene) Derivatives for Light-Emitting Display. <i>Macromolecules</i> , <b>2003</b> , 36, 3841-3847	5.5	79
213	Carrier generation and transport in bulk heterojunction films processed with 1,8-octanedithiol as a processing additive. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 033706	2.5	74
212	Recent progress in indoor organic photovoltaics. <i>Nanoscale</i> , <b>2020</b> , 12, 5792-5804	7.7	72
211	Synthesis of a new cross-linkable perfluorocyclobutane-based hole-transport material. <i>Organic Letters</i> , <b>2006</b> , 8, 4703-6	6.2	70
210	Stabilized Polymers with Novel Indenoindene Backbone against Photodegradation for LEDs and Solar Cells. <i>Macromolecules</i> , <b>2008</b> , 41, 7296-7305	5.5	67
209	Stabilized Blue Emission from Organic Light-Emitting Diodes Using Poly(2,6-(4,4-bis(2-ethylhexyl)-4H-cyclopenta[def]phenanthrene)). <i>Macromolecules</i> , <b>2005</b> , 38, 6285-6289	5.5	65
208	High-efficiency photovoltaic cells with wide optical band gap polymers based on fluorinated phenylene-alkoxybenzothiadiazole. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 1443-1455	35.4	63
207	Hot slot die coating for additive-free fabrication of high performance roll-to-roll processed polymer solar cells. <i>Energy and Environmental Science</i> , <b>2018</b> , 11, 3248-3255	35.4	63
206	Electroluminescence in polymer-fullerene photovoltaic cells. <i>Applied Physics Letters</i> , <b>2005</b> , 86, 183502	3.4	63
205	Single Component Organic Solar Cells Based on Oligothiophene-Fullerene Conjugate. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1702474	15.6	62
204	Design, Synthesis, and Electroluminescent Property of CNBPoly(dihexylfluorenevinylene) for LEDs. <i>Macromolecules</i> , <b>2003</b> , 36, 6970-6975	5.5	62
203	Efficient conventional- and inverted-type photovoltaic cells using a planar alternating polythiophene copolymer. <i>Chemistry - A European Journal</i> , <b>2012</b> , 18, 2551-8	4.8	60

202	Ultrathin, lightweight and flexible perovskite solar cells with an excellent power-per-weight performance. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 1107-1114	13	59
201	Highly efficient plasmonic organic optoelectronic devices based on a conducting polymer electrode incorporated with silver nanoparticles. <i>Energy and Environmental Science</i> , <b>2013</b> , 6, 1949	35.4	59
200	Novel Electroluminescent Polymers with Fluoro Groups in Vinylene Units. <i>Macromolecules</i> , <b>2004</b> , 37, 6711-6715	5.5	59
199	Improved Performance in Polymer Solar Cells Using Mixed PC61BM/PC71BM Acceptors. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1401687	21.8	58
198	Reduced graphene oxide (rGO)-wrapped fullerene (C <sub>60</sub> )wires. <i>ACS Nano</i> , <b>2011</b> , 5, 8365-71	16.7	58
197	Single-step fabrication of quantum funnels via centrifugal colloidal casting of nanoparticle films. <i>Nature Communications</i> , <b>2015</b> , 6, 7772	17.4	57
196	Inverted colloidal quantum dot solar cells. <i>Advanced Materials</i> , <b>2014</b> , 26, 3321-7	24	57
195	Syntheses and properties of electroluminescent polyfluorene-based conjugated polymers, containing oxadiazole and carbazole units as pendants, for LEDs. <i>Polymer</i> , <b>2005</b> , 46, 12158-12165	3.9	55
194	Engineering the morphology via processing additives in multiple all-polymer solar cells for improved performance. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 10421-10432	13	54
193	Ambipolar organic field-effect transistors fabricated using a composite of semiconducting polymer and soluble fullerene. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 153505	3.4	53
192	Highly crystalline and low bandgap donor polymers for efficient polymer solar cells. <i>Advanced Materials</i> , <b>2012</b> , 24, 538-42	24	52
191	Easily Attainable Phenothiazine-Based Polymers for Polymer Solar Cells: Advantage of Insertion of S,S-dioxides into its Polymer for Inverted Structure Solar Cells. <i>Macromolecules</i> , <b>2012</b> , 45, 1847-1857	5.5	48
190	Vivid and Fully Saturated Blue Light-Emitting Diodes Based on Ligand-Modified Halide Perovskite Nanocrystals. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 23401-23409	9.5	45
189	Ladder-type heteroacene polymers bearing carbazole and thiophene ring units and their use in field-effect transistors and photovoltaic cells. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 843-850		45
188	Slot-Die and Roll-to-Roll Processed Single Junction Organic Photovoltaic Cells with the Highest Efficiency. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901805	21.8	44
187	A universal processing additive for high-performance polymer solar cells. <i>RSC Advances</i> , <b>2017</b> , 7, 7476-7482	3.7	43
186	Quinoxaline-thiophene based thick photovoltaic devices with an efficiency of ~8%. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 9967-9976	13	42
185	Bulk Heterojunction Materials Composed of Poly(2,5-bis(3-tetradecylthiophen-2-yl)thieno[3,2-b]thiophene): Ultrafast Electron Transfer and Carrier Recombination. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 7853-7857	3.8	42

184	Alkoxybenzothiadiazole-Based Fullerene and Nonfullerene Polymer Solar Cells with High Shunt Resistance for Indoor Photovoltaic Applications. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 3885-3894	9.5	41
183	Nanoparticle-Enhanced Silver-Nanowire Plasmonic Electrodes for High-Performance Organic Optoelectronic Devices. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800659	24	41
182	Dithienogermole-Containing Small-Molecule Solar Cells with 7.3% Efficiency: In-Depth Study on the Effects of Heteroatom Substitution of Si with Ge. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1402044	21.8	40
181	Nanosopic management of molecular packing and orientation of small molecules by a combination of linear and branched alkyl side chains. <i>ACS Nano</i> , <b>2014</b> , 8, 5988-6003	16.7	40
180	Toward the Realization of a practical diketopyrrolopyrrole-based small molecule for improved efficiency in ternary BHJ solar cells. <i>Macromolecular Rapid Communications</i> , <b>2012</b> , 33, 140-5	4.8	39
179	A synthetic approach to a fullerene-rich dendron and its linear polymer via ring-opening metathesis polymerization. <i>Chemical Communications</i> , <b>2011</b> , 47, 3078-80	5.8	39
178	Spectroscopically tracking charge separation in polymer : fullerene blends with a three-phase morphology. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 2713-2724	35.4	38
177	Photocurrent Extraction Efficiency near Unity in a Thick Polymer Bulk Heterojunction. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 3324-3330	15.6	38
176	Synthesis of fluorinated analogues of a practical polymer TQ for improved open-circuit voltages in polymer solar cells. <i>Polymer Chemistry</i> , <b>2014</b> , 5, 2540	4.9	38
175	Conjugated Polyelectrolytes as Efficient Hole Transport Layers in Perovskite Light-Emitting Diodes. <i>ACS Nano</i> , <b>2018</b> , 12, 5826-5833	16.7	38
174	The effect of introducing a buffer layer to polymer solar cells on cell efficiency. <i>Solar Energy Materials and Solar Cells</i> , <b>2011</b> , 95, 1119-1122	6.4	37
173	Organic photovoltaic cells based on conjugated polymer/fullerene composites. <i>Current Applied Physics</i> , <b>2001</b> , 1, 139-143	2.6	36
172	Color-Tunable Electroluminescent Polymers by Substituents on the Poly(p-phenylenevinylene) Derivatives for Light-Emitting Diodes. <i>Chemistry of Materials</i> , <b>2002</b> , 14, 5090-5097	9.6	36
171	Green-solvent processable semiconducting polymers applicable in additive-free perovskite and polymer solar cells: molecular weights, photovoltaic performance, and thermal stability. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 5538-5543	13	35
170	Peroptronic devices: perovskite-based light-emitting solar cells. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 1950-1957	35.4	35
169	Highly efficient red-emitting hybrid polymer light-emitting diodes via Föster resonance energy transfer based on homogeneous polymer blends with the same polyfluorene backbone. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 5690-5	9.5	34
168	High performance polymer light-emitting diodes with N-type metal oxide/conjugated polyelectrolyte hybrid charge transport layers. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 163305	3.4	34
167	Reversible, Full-Color Luminescence by Post-treatment of Perovskite Nanocrystals. <i>Joule</i> , <b>2018</b> , 2, 2105-2116	21.8	34

166	Device Architectures for Enhanced Photon Recycling in Thin-Film Multijunction Solar Cells. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1400919	21.8	33
165	Replacing the metal oxide layer with a polymer surface modifier for high-performance inverted polymer solar cells. <i>RSC Advances</i> , <b>2014</b> , 4, 4791-4795	3.7	33
164	Effects of ionic liquid molecules in hybrid PbS quantum dot-organic solar cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 1757-60	9.5	33
163	Plasmonic Transition via Interparticle Coupling of [email-protected] Core-Shell Nanostructures Sheathed in Double Hydrophilic Block Copolymer for High-Performance Polymer Solar Cell. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 4789-4798	9.6	32
162	Thienoisindigo (TIIG)-based small molecules for the understanding of structure-property-device performance correlations. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 9899-9908	13	32
161	Interface Engineering Driven Stabilization of Halide Perovskites against Moisture, Heat, and Light for Optoelectronic Applications. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2000768	21.8	32
160	Simultaneous Enhancement of Solar Cell Efficiency and Photostability via Chemical Tuning of Electron Donating Units in Diketopyrrolopyrrole-Based Push-Pull Type Polymers. <i>Macromolecules</i> , <b>2014</b> , 47, 6270-6280	5.5	32
159	Photovoltaic effects on the organic ambipolar field-effect transistors. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 063511	3.4	32
158	Multilayer bipolar field-effect transistors. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 063505	3.4	31
157	Improved electron injection in polymer light-emitting diodes using anionic conjugated polyelectrolyte. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 123304	3.4	30
156	Interfacial engineering for highly efficient organic solar cells. <i>Current Applied Physics</i> , <b>2017</b> , 17, 370-391	2.6	29
155	Towards optimization of P3HT:bisPCBM composites for highly efficient polymer solar cells. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 7710		29
154	Efficient Exciton Diffusion in Organic Bilayer Heterojunctions with Nonfullerene Small Molecular Acceptors. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 1628-1635	20.1	29
153	Naphthalene diimide-based small molecule acceptors for fullerene-free organic solar cells. <i>Solar Energy</i> , <b>2017</b> , 150, 90-95	6.8	28
152	Study of Burn-In Loss in Green Solvent-Processed Ternary Blended Organic Photovoltaics Derived from UV-Crosslinkable Semiconducting Polymers and Nonfullerene Acceptors. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901829	21.8	28
151	Straight chain D <sub>A</sub> copolymers based on thienothiophene and benzothiadiazole for efficient polymer field effect transistors and photovoltaic cells. <i>Polymer Chemistry</i> , <b>2016</b> , 7, 4638-4646	4.9	27
150	Control of Charge Dynamics via Use of Nonionic Phosphonate Chains and Their Effectiveness for Inverted Structure Solar Cells. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1500844	21.8	27
149	Ultrafast charge transfer in operating bulk heterojunction solar cells. <i>Advanced Materials</i> , <b>2015</b> , 27, 2036241	24.1	26

148	Multifunctional quinoxaline containing small molecules with multiple electron-donating moieties: Solvatochromic and optoelectronic properties. <i>Synthetic Metals</i> , <b>2012</b> , 162, 1169-1176	3.6	26
147	Conformal fabrication of colloidal quantum dot solids for optically enhanced photovoltaics. <i>ACS Nano</i> , <b>2015</b> , 9, 5447-53	16.7	25
146	High-yield synthesis of single-crystal silicon nanoparticles as anode materials of lithium ion batteries via photosensitizer-assisted laser pyrolysis. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 18070-18075	13.5	25
145	Copolymers comprising 2,7-carbazole and bis-benzothiadiazole units for bulk-heterojunction solar cells. <i>Chemistry - A European Journal</i> , <b>2011</b> , 17, 14681-8	4.8	25
144	High mobility solution-processed hybrid light emitting transistors. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 183302	3.4	23
143	Synthesis and characterization of a bis-methanofullerene-4-nitro- $\pi$ -cyanostilbene dyad as a potential acceptor for high-performance polymer solar cells. <i>Tetrahedron</i> , <b>2012</b> , 68, 6696-6700	2.4	23
142	Replacing 2,1,3-benzothiadiazole with 2,1,3-naphthothiadiazole in PCDTBT: towards a low bandgap polymer with deep HOMO energy level. <i>Polymer Chemistry</i> , <b>2012</b> , 3, 3276	4.9	23
141	Fabrication of gold dot, ring, and corpuscle arrays from block copolymer templates via a simple modification of surface energy. <i>Nanoscale</i> , <b>2011</b> , 3, 5007	7.7	23
140	A thermally stable, barium-stabilized $\text{CsPbI}_3$ perovskite for optoelectronic devices. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 21740-21746	13	22
139	Morphology-Dependent Hole Transfer under Negligible HOMO Difference in Non-Fullerene Acceptor-Based Ternary Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 7208-7219	9.5	22
138	Acid-functionalized fullerenes used as interfacial layer materials in inverted polymer solar cells. <i>Organic Electronics</i> , <b>2013</b> , 14, 3138-3145	3.5	22
137	Enhanced open circuit voltage by hydrophilic ionic liquids as buffer layer in conjugated polymer-nanoporous titania hybrid solar cells. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 15309-14	3.6	22
136	Influence of aromatic heterocycle of conjugated side chains on photovoltaic performance of benzodithiophene-based wide-bandgap polymers. <i>Polymer Chemistry</i> , <b>2016</b> , 7, 4036-4045	4.9	22
135	Pseudohalides in Lead-Based Perovskite Semiconductors. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807029	24	21
134	Optimal top electrodes for inverted polymer solar cells. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 2152-9	3.6	21
133	Size tailoring of aqueous germanium nanoparticle dispersions. <i>Nanoscale</i> , <b>2014</b> , 6, 10156-60	7.7	21
132	A First Approach to White Organic Electroluminescence Device from a Single Rod-Coil Poly[thiophene-block-(N-vinylcarbazole)] Diblock Copolymer. <i>Macromolecular Rapid Communications</i> , <b>2010</b> , 31, 2047-52	4.8	21
131	Efficiency Exceeding 11% in Tandem Polymer Solar Cells Employing High Open-Circuit Voltage Wide-Bandgap $\pi$ -Conjugated Polymers. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700782	21.8	20



130	Highly Asymmetric n(+)-p Heterojunction Quantum-Dot Solar Cells with Significantly Improved Charge-Collection Efficiencies. <i>Advanced Materials</i> , <b>2016</b> , 28, 1780-7	24	20
129	Triple-junction hybrid tandem solar cells with amorphous silicon and polymer-fullerene blends. <i>Scientific Reports</i> , <b>2014</b> , 4, 7154	4.9	19
128	High-Resolution Filtration Patterning of Silver Nanowire Electrodes for Flexible and Transparent Optoelectronic Devices. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 32154-32162	9.5	19
127	Thermally Durable Nonfullerene Acceptor with Nonplanar Conjugated Backbone for High-Performance Organic Solar Cells. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1903585	21.8	19
126	Structural and morphological tuning of dithienobenzodithiophene-core small molecules for efficient solution processed organic solar cells. <i>Dyes and Pigments</i> , <b>2015</b> , 115, 23-34	4.6	19
125	Effect of Interfacial Layers on the Device Lifetime of Perovskite Solar Cells. <i>Small Methods</i> , <b>2020</b> , 4, 2000065	10.5	18
124	Enhanced performance of polymer bulk heterojunction solar cells employing multifunctional iridium complexes. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 10195-10200	7.1	18
123	Synthesis and characterization of fluorene-carbazole and fluorene-phenothiazine copolymers with carbazole and oxadiazole pendants for organic light emitting diodes. <i>Polymer</i> , <b>2010</b> , 51, 6174-6181	3.9	18
122	Hybrid organic-inorganic light-emitting electrochemical cells using fluorescent polymer and ionic liquid blend as an active layer. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 253309	3.4	17
121	Improved performance of polymer light-emitting diodes with nanocomposites. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 073306	3.4	17
120	Conjugated polymers containing 6-(2-thienyl)-4H-thieno[3,2-b]indole (TTI) and isoindigo for organic photovoltaics. <i>Polymer</i> , <b>2016</b> , 95, 36-44	3.9	17
119	Dithienogermole-Based Nonfullerene Acceptors: Roles of the Side-Chains Direction and Development of Green-Tinted Efficient Semitransparent Organic Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 7689-7698	6.1	16
118	A new small molecule acceptor based on indaceno[2,1-b:6,5-b']dithiophene and thiophene-fused ending group for fullerene-free organic solar cells. <i>Dyes and Pigments</i> , <b>2018</b> , 148, 263-269	4.6	16
117	Ternary Halide Perovskites for Highly Efficient Solution-Processed Hybrid Solar Cells. <i>ACS Energy Letters</i> , <b>2016</b> , 1, 712-718	20.1	16
116	Multifunctional conjugated polymers with main-chain donors and side-chain acceptors for dye sensitized solar cells (DSSCs) and organic photovoltaic cells (OPVs). <i>Macromolecular Rapid Communications</i> , <b>2011</b> , 32, 1809-14	4.8	16
115	A donor-acceptor semiconducting polymer with a random configuration for efficient, green-solvent-processable flexible solar cells. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 24580-24587	13	16
114	Synthesis and properties of low band gap polymers based on thienyl thienoindole as a new electron-rich unit for organic photovoltaics. <i>Polymer Chemistry</i> , <b>2015</b> , 6, 6011-6020	4.9	15
113	Highly efficient polymer solar cells with a thienopyrroledione and benzodithiophene containing planar random copolymer. <i>Polymer Chemistry</i> , <b>2018</b> , 9, 1216-1222	4.9	15

112	A roundabout approach to control morphological orientation and solar-cell performance by modulating side-chain branching position in benzodithiophene-based polymers. <i>ChemPhysChem</i> , <b>2015</b> , 16, 1305-14	3.2	15
111	Highly Stable Bulk Perovskite for Blue LEDs with Anion-Exchange Method. <i>Nano Letters</i> , <b>2021</b> , 21, 3473-3479		15
110	Effect of Heterocyclic Anchoring Sequence on the Properties of Dithienogermole-Based Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 7091-7099	9.5	14
109	Synergistic photocurrent addition in hybrid quantum dot: Bulk heterojunction solar cells. <i>Nano Energy</i> , <b>2015</b> , 13, 491-499	17.1	14
108	2,2-dimethyl-2H-benzimidazole based small molecules for organic solar cells. <i>Macromolecular Research</i> , <b>2015</b> , 23, 214-222	1.9	14
107	Correlation between Polymer Structure and Polymer:Fullerene Blend Morphology and Its Implications for High Performance Polymer Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 2237-2244	3.8	14
106	Solution-processed CdS transistors with high electron mobility. <i>RSC Advances</i> , <b>2014</b> , 4, 3153-3157	3.7	14
105	The influence of tetrakis-ethylhexyloxy groups substituted in PPV derivative for PLEDs. <i>Polymer</i> , <b>2008</b> , 49, 467-473	3.9	14
104	Aesthetic and colorful: Dichroic polymer solar cells using high-performance Fabry-Pérot etalon electrodes with a unique Sb <sub>2</sub> O <sub>3</sub> cavity. <i>Nano Energy</i> , <b>2020</b> , 77, 105146	17.1	14
103	Photophysical pathways in efficient bilayer organic solar cells: The importance of interlayer energy transfer. <i>Nano Energy</i> , <b>2021</b> , 84, 105924	17.1	14
102	Benzodithiophene-thiophene-based photovoltaic polymers with different side-chains. <i>Journal of Polymer Science Part A</i> , <b>2015</b> , 53, 854-862	2.5	13
101	Functionalized PFN-X (X = Cl, Br, or I) for Balanced Charge Carriers of Highly Efficient Blue Light-Emitting Diodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 35740-35747	9.5	13
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99	Synthesis of the pyrrolo[3,2-b]pyrrole-based copolymer with enhanced open circuit voltage. <i>Synthetic Metals</i> , <b>2012</b> , 162, 2288-2293	3.6	13
98	Trifluoromethyl benzimidazole-based conjugated polymers with deep HOMO levels for organic photovoltaics. <i>Synthetic Metals</i> , <b>2015</b> , 205, 112-120	3.6	12
97	Silicon nanoparticle size-dependent open circuit voltage in an organic/inorganic hybrid solar cell. <i>Current Applied Physics</i> , <b>2014</b> , 14, 127-131	2.6	12
96	2,5-di(thiophen-2-yl)thiazolo[5,4-d]thiazole-based donor-acceptor type copolymers for photovoltaic cells. <i>Current Applied Physics</i> , <b>2012</b> , 12, 11-16	2.6	12
95	Molecular aggregation method for perovskite/fullerene bulk heterostructure solar cells. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 1326-1334	13	12

94	Machine learning-assisted development of organic photovoltaics via high-throughput in situ formulation. <i>Energy and Environmental Science</i> , <b>2021</b> , 14, 3438-3446	35.4	12
93	Dichroic Sb <sub>2</sub> O <sub>3</sub> /Ag/Sb <sub>2</sub> O <sub>3</sub> Electrodes for Colorful Semitransparent Organic Solar Cells. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000201	7.1	11
92	High-Performance Perovskite Light-Emitting Diodes with Surface Passivation of CsPbBr <sub>3</sub> Nanocrystals via Antisolvent-Triggered Ion-Exchange. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 31582-31590	9.5	11
91	Capacity retention behavior and morphology evolution of SixGe <sub>1-x</sub> nanoparticles as lithium-ion battery anode. <i>Nanotechnology</i> , <b>2015</b> , 26, 255702	3.4	11
90	Synthesis and properties of polyfluorene, containing oxadiazole and carbazole units as pendants for white light-emitting diodes. <i>Thin Solid Films</i> , <b>2008</b> , 516, 7373-7380	2.2	11
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88	Observation of ambipolar field-effect behavior in donor-acceptor conjugated copolymers. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 21238		10
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86	Production of pristine, sulfur-coated and silicon-alloyed germanium nanoparticles via laser pyrolysis. <i>Nanotechnology</i> , <b>2015</b> , 26, 305703	3.4	9
85	A highly transparent thin film hematite with multi-element dopability for an efficient unassisted water splitting system. <i>Nano Energy</i> , <b>2020</b> , 76, 105089	17.1	9
84	Influence of the Crystalline Nature of Small Donors Molecules on the Efficiency and Stability of Organic Photovoltaic Devices. <i>Solar Rrl</i> , <b>2018</b> , 2, 1700235	7.1	9
83	High-efficiency, hybrid Si/C <sub>60</sub> heterojunction solar cells. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 16410-16417	16.4	9
82	Clean thermal decomposition of tertiary-alkyl metal thiolates to metal sulfides: environmentally-benign, non-polar inks for solution-processed chalcopyrite solar cells. <i>Scientific Reports</i> , <b>2016</b> , 6, 36608	4.9	9
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78	Optically Tunable Plasmonic Two-Dimensional Ag Quantum Dot Arrays for Optimal Light Absorption in Polymer Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 17569-17576	3.8	9
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76	Photovoltaic polymers based on difluoroquinoxaline units with deep HOMO levels. <i>Journal of Polymer Science Part A</i> , <b>2018</b> , 56, 1489-1497	2.5	8
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70	Fast vaporizing anti-solvent for high crystalline perovskite to achieve high performance perovskite solar cells. <i>Thin Solid Films</i> , <b>2018</b> , 661, 122-127	2.2	7
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61	Formamidinium-based planar heterojunction perovskite solar cells with alkali carbonate-doped zinc oxide layer.. <i>RSC Advances</i> , <b>2018</b> , 8, 24110-24115	3.7	7
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52	Solution-processed, inverted organic solar cells with bilayered inorganic/organic electron extraction layers. <i>RSC Advances</i> , <b>2016</b> , 6, 36561-36567	3.7	6
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49	Synthesis and photovoltaic properties of alkoxy-benzimidazole containing low band gap polymers. <i>Thin Solid Films</i> , <b>2015</b> , 580, 29-35	2.2	5
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39	Morphological and Optical Engineering for High-Performance Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 4705-4711	9.5	4
38	Reducing Burn-In Loss of Organic Photovoltaics by a Robust Electron-Transporting Layer. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1900213	4.6	4
37	2,7-Carbazole and thieno[3,4-c]pyrrole-4,6-dione based copolymers with deep highest occupied molecular orbital for photovoltaic cells. <i>Current Applied Physics</i> , <b>2015</b> , 15, 654-661	2.6	4
36	Synthesis and photovoltaic properties of benzimidazole-based copolymer with fluorine atom. <i>Polymer Bulletin</i> , <b>2016</b> , 73, 2511-2519	2.4	4
35	Medium bandgap copolymers based on carbazole and quinoxaline exceeding 1.0 V open-circuit voltages. <i>RSC Advances</i> , <b>2016</b> , 6, 17624-17631	3.7	4
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31	Synthesis and photovoltaic properties of conjugated copolymers based on benzimidazole and various thiophene. <i>Journal of Polymer Science Part A</i> , <b>2011</b> , 49, 3751-3758	2.5	4
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24	New architecture for high-efficiency polymer photovoltaic cells using solution-based titanium oxide layer <b>2006</b> ,		3
23	Substituent position-induced color tunability in polymer light-emitting diodes. <i>Applied Physics Letters</i> , <b>2002</b> , 81, 1732-1734	3.4	3

22	Modeling and implementation of tandem polymer solar cells using wide-bandgap front cells <b>2020</b> , 2, 131-142		3
21	The optimization of intermediate semi-bonding structure using solvent vapor annealing for high performance p-i-n structure perovskite solar cells. <i>Organic Electronics</i> , <b>2019</b> , 65, 300-304	3.5	3
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18	Designing a naphthyridinedione-based conjugated polymer for thickness-tolerant high efficiency polymer solar cells. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 10846-10854	13	3
17	Hetero-tandem organic solar cells drive water electrolysis with a solar-to-hydrogen conversion efficiency up to 10%. <i>Applied Catalysis B: Environmental</i> , <b>2022</b> , 309, 121237	21.8	3
16	Synthesis and TFT Properties of Fluorenyl Cored Conjugated Compound for Organic Thin Film Transistors. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2016</b> , 16, 2979-82	1.3	2
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14	A recent advances of blue perovskite light emitting diodes for next generation displays. <i>Journal of Semiconductors</i> , <b>2021</b> , 42, 101608	2.3	2
13	Planar Organic Bilayer Heterojunctions Fabricated on Water with Ultrafast Donor-to-Acceptor Charge Transfer. <i>Solar Rrl</i> , <b>2021</b> , 5, 2100326	7.1	2
12	Flexible Organic Photovoltaics with Colorful Semi-Transparent Metal/Dielectric/Metal Top Electrode. <i>ECS Journal of Solid State Science and Technology</i> , <b>2021</b> , 10, 065007	2	2
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4	Fabrication of Water Soluble Conjugated Polymers for WOLED. <i>Molecular Crystals and Liquid Crystals</i> , <b>2012</b> , 567, 171-177	0.5
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2	Design and synthesis of small molecules with difluoroquinoxaline units for OSCs. <i>Molecular Crystals and Liquid Crystals</i> , <b>2020</b> , 705, 79-86	0.5
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