

Sung Heum Park

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182
papers

7,649
citations

30
h-index

84
g-index

193
ext. papers

8,457
ext. citations

5.8
avg, IF

5.79
L-index

#	Paper	IF	Citations
182	Bulk heterojunction solar cells with internal quantum efficiency approaching 100%. <i>Nature Photonics</i> , 2009 , 3, 297-302	33.9	3689
181	Metallic transport in polyaniline. <i>Nature</i> , 2006 , 441, 65-8	50.4	735
180	Ligand-engineered bandgap stability in mixed-halide perovskite LEDs. <i>Nature</i> , 2021 , 591, 72-77	50.4	172
179	A thermally stable semiconducting polymer. <i>Advanced Materials</i> , 2010 , 22, 1253-7	24	149
178	Titanium suboxide as an optical spacer in polymer solar cells. <i>Applied Physics Letters</i> , 2009 , 95, 013302	3.4	121
177	Light-soaking issue in polymer solar cells: Photoinduced energy level alignment at the sol-gel processed metal oxide and indium tin oxide interface. <i>Journal of Applied Physics</i> , 2012 , 111, 114511	2.5	106
176	Dual-Mode Luminescence with Broad Near UV and Blue Excitation Band from Sr ₂ CaMoO ₆ :Sm ³⁺ Phosphor for White LEDs. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 15517-15525	3.8	95
175	Dual-functional of non-contact thermometry and field emission displays via efficient Bi ³⁺ -rEu ³⁺ energy transfer in emitting-color tunable GdNbO ₄ phosphors. <i>Chemical Engineering Journal</i> , 2020 , 382, 122861	14.7	94
174	Semiconducting polymer photodetectors with electron and hole blocking layers: high detectivity in the near-infrared. <i>Sensors</i> , 2010 , 10, 6488-96	3.8	82
173	Novel Film-Casting Method for High-Performance Flexible Polymer Electrodes. <i>Advanced Functional Materials</i> , 2011 , 21, 487-493	15.6	80
172	Stabilized Polymers with Novel Indenoindene Backbone against Photodegradation for LEDs and Solar Cells. <i>Macromolecules</i> , 2008 , 41, 7296-7305	5.5	67
171	Stabilized Blue Emission from Organic Light-Emitting Diodes Using Poly(2,6-(4,4-bis(2-ethylhexyl)-4H-cyclopenta[def]phenanthrene)). <i>Macromolecules</i> , 2005 , 38, 6285-6289	5.5	65
170	The design and synthesis of new double perovskite (Na,Li)YMg(W,Mo)O ₆ :Eu ³⁺ red phosphors for white light-emitting diodes. <i>Journal of Alloys and Compounds</i> , 2017 , 716, 56-64	5.7	64
169	A low-bandgap alternating copolymer containing the dimethylbenzimidazole moiety. <i>Journal of Materials Chemistry</i> , 2010 , 20, 6517		63
168	Electroluminescence in polymer-fullerene photovoltaic cells. <i>Applied Physics Letters</i> , 2005 , 86, 183502	3.4	63
167	Design, Synthesis, and Electroluminescent Property of CNBoly(dihexylfluorenevinylene) for LEDs. <i>Macromolecules</i> , 2003 , 36, 6970-6975	5.5	62
166	Novel Electroluminescent Polymers with Fluoro Groups in Vinylene Units. <i>Macromolecules</i> , 2004 , 37, 6711-6715	5.5	59

165	Syntheses and properties of electroluminescent polyfluorene-based conjugated polymers, containing oxadiazole and carbazole units as pendants, for LEDs. <i>Polymer</i> , 2005 , 46, 12158-12165	3.9	55
164	Er-Activated NaLaMgWO double perovskite phosphors and their bifunctional application in solid-state lighting and non-contact optical thermometry. <i>Dalton Transactions</i> , 2019 , 48, 4405-4412	4.3	49
163	Isomeric iminofullerenes as acceptors in bulk heterojunction organic solar cells. <i>Journal of Materials Chemistry</i> , 2009 , 19, 5624		41
162	Overcoming Fill Factor Reduction in Ternary Polymer Solar Cells by Matching the Highest Occupied Molecular Orbital Energy Levels of Donor Polymers. <i>Advanced Energy Materials</i> , 2018 , 8, 1702251	21.8	41
161	Near-ultraviolet light induced red emission in Sm ³⁺ -activated NaSrLa(MoO ₄)O ₃ phosphors for solid-state illumination. <i>Journal of Alloys and Compounds</i> , 2020 , 817, 152705	5.7	40
160	A red-emitting perovskite-type SrLa (1-x) MgTaO ₆ : x Eu ³⁺ for white LED application. <i>Journal of Luminescence</i> , 2015 , 167, 381-385	3.8	39
159	Improvement of photoluminescence properties of Eu ³⁺ doped SrNb ₂ O ₆ phosphor by charge compensation. <i>Optical Materials</i> , 2017 , 66, 220-229	3.3	38
158	Highly efficient imide functionalized pyrrolo[3,4-c]pyrrole-1,3-dione-based random copolymer containing thieno[3,4-c]pyrrole-4,6-dione and benzodithiophene for simple structured polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 20126-20132	13	38
157	The role of Yb ³⁺ concentrations on Er ³⁺ doped SrLaMgTaO ₆ double perovskite phosphors. <i>RSC Advances</i> , 2017 , 7, 1464-1470	3.7	37
156	Color-Tunable Electroluminescent Polymers by Substituents on the Poly(p-phenylenevinylene) Derivatives for Light-Emitting Diodes. <i>Chemistry of Materials</i> , 2002 , 14, 5090-5097	9.6	36
155	Low-bandgap poly(4H-cyclopenta[def]phenanthrene) derivatives with 4,7-dithienyl-2,1,3-benzothiadiazole unit for photovoltaic cells. <i>Polymer</i> , 2010 , 51, 390-396	3.9	34
154	The tetravalent manganese activated SrLaMgTaO ₆ phosphor for w-LED applications. <i>Materials Research Bulletin</i> , 2018 , 97, 115-120	5.1	31
153	Understanding and Tailoring Grain Growth of Lead-Halide Perovskite for Solar Cell Application. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 33925-33933	9.5	31
152	Tunable single-phased white-emitting Sr ₃ Y(PO ₄) ₃ :Dy ³⁺ phosphors for near-ultraviolet white light-emitting diodes. <i>Ceramics International</i> , 2017 , 43, 8497-8501	5.1	30
151	Boosting the efficiency of quasi-2D perovskites light-emitting diodes by using encapsulation growth method. <i>Nano Energy</i> , 2021 , 80, 105511	17.1	30
150	Single-Crystal-like Perovskite for High-Performance Solar Cells Using the Effective Merged Annealing Method. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 12382-12390	9.5	29
149	Photoluminescence properties, crystal structure and electronic structure of a Sr ₂ CaWO ₆ :Sm ³⁺ red phosphor. <i>RSC Advances</i> , 2015 , 5, 89290-89298	3.7	29
148	Controlled crystal facet of MAPbI ₃ perovskite for highly efficient and stable solar cell via nucleation modulation. <i>Nanoscale</i> , 2018 , 11, 170-177	7.7	28

147	Eu ³⁺ doped (Li, Na, K) LaMgWO ₆ red emission phosphors: An example to rational design with theoretical and experimental investigation. <i>Journal of Alloys and Compounds</i> , 2019 , 785, 651-659	5.7	26
146	Infrared excited Er/Yb codoped NaLaMgWO phosphors with intense green up-conversion luminescence and excellent temperature sensing performance. <i>Dalton Transactions</i> , 2019 , 48, 11382-11390	4.3	25
145	2D Perovskite Seeding Layer for Efficient Air-Processable and Stable Planar Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020 , 30, 2003081	15.6	25
144	Crystal structure, electronic structure and photoluminescence properties of KLaMgWO ₆ :Eu ³⁺ phosphors. <i>Journal of Luminescence</i> , 2018 , 197, 270-276	3.8	25
143	Conjugated copolymers based on dihexyl-benzimidazole moiety for organic photovoltaics. <i>Polymer</i> , 2010 , 51, 5385-5391	3.9	24
142	Molybdenum substitution induced luminescence enhancement in Gd ₂ W ₁ -Mo O ₆ :Eu ³⁺ phosphors for near ultraviolet based solid-state lighting. <i>Journal of Luminescence</i> , 2018 , 202, 97-106	3.8	24
141	Synthesis and characterization of low-bandgap copolymers based on dihexyl-2h-benzimidazole and cyclopentadithiophene. <i>Journal of Polymer Science Part A</i> , 2010 , 48, 4567-4573	2.5	23
140	Influence of alkaline ions on the luminescent properties of Mn ⁴⁺ -doped MGe ₄ O ₉ (M = Li ₂ , LiNa and K ₂) red-emitting phosphors. <i>Journal of Luminescence</i> , 2017 , 192, 1072-1083	3.8	22
139	Blue shift behavior of Eu ²⁺ emission in eulytite-type Sr ₃ La(PO ₄) ₃ phosphor based on the release of adjacent Eu ³⁺ -induced stress. <i>Journal of Alloys and Compounds</i> , 2018 , 742, 159-164	5.7	21
138	Highly crystalline new benzodithiophene-benzothiadiazole copolymer for efficient ternary polymer solar cells with an energy conversion efficiency of over 10%. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 4281-4289	7.1	21
137	Simultaneous bifunctional application of solid-state lighting and ratiometric optical thermometer based on double perovskite LiLaMgWO:Er thermochromic phosphors.. <i>RSC Advances</i> , 2019 , 9, 7189-7195	3.7	20
136	Achieving non-contact optical thermometer via inherently Eu ²⁺ /Eu ³⁺ -activated SrAl ₂ Si ₂ O ₈ phosphors prepared in air. <i>Journal of Alloys and Compounds</i> , 2020 , 843, 155858	5.7	20
135	Syntheses and characterization of carbazole based new low-band gap copolymers containing highly soluble benzimidazole derivatives for solar cell application. <i>Journal of Polymer Science Part A</i> , 2011 , 49, 369-380	2.5	20
134	Break the Interacting Bridge between Eu Ions in the 3D Network Structure of CdMoO: Eu Bright Red Emission Phosphor. <i>Scientific Reports</i> , 2018 , 8, 5936	4.9	19
133	Synthesis and electroluminescent properties of copolymers based on PPV with fluoro groups in vinylene units. <i>Polymer</i> , 2007 , 48, 1541-1549	3.9	19
132	Synthesis and photoluminescence of Bi ³⁺ ,Eu ³⁺ doped CdWO ₄ phosphors: application of energy level rules of Bi ³⁺ ions. <i>New Journal of Chemistry</i> , 2016 , 40, 3552-3560	3.6	18
131	Increased Efficiencies of the Copolymers with Fluoro Groups in Vinylene Units. <i>Macromolecules</i> , 2007 , 40, 6799-6806	5.5	18
130	In-situ intramolecular synthesis of tubular carbon nitride S-scheme homojunctions with exceptional in-plane exciton splitting and mechanism insight. <i>Chemical Engineering Journal</i> , 2021 , 414, 128802	14.7	18

129	Tandem solar cells made from amorphous silicon and polymer bulk heterojunction sub-cells. <i>Advanced Materials</i> , 2015 , 27, 298-302	24	17
128	Bilateral Interface Engineering for Efficient and Stable Perovskite Solar Cells Using Phenylethylammonium Iodide. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 24827-24836	9.5	17
127	Effective hot-air annealing for improving the performance of perovskite solar cells. <i>Solar Energy</i> , 2017 , 146, 359-367	6.8	16
126	Study on Na ₃ Lu _{1-x} Eu _x (PO ₄) ₂ phosphor: High efficient Na ₃ Eu(PO ₄) ₂ red emitting phosphor with excellent thermal stability. <i>Journal of Alloys and Compounds</i> , 2019 , 805, 346-354	5.7	14
125	Synthesis and photovoltaic properties of copolymers with a fluoro quinoxaline unit. <i>Journal of Polymer Science Part A</i> , 2018 , 56, 821-830	2.5	14
124	Wide range yellow emission Sr ₈ MgLa(PO ₄) ₇ : Eu ²⁺ , Mn ²⁺ , Tb ³⁺ phosphors for near ultraviolet white LEDs. <i>Materials Research Bulletin</i> , 2018 , 107, 280-285	5.1	14
123	Enhanced efficiency of bilayer polymer solar cells by the solvent treatment method. <i>Synthetic Metals</i> , 2015 , 199, 408-412	3.6	14
122	Improved Moisture Stability of Perovskite Solar Cells with a Surface-Treated PCBM Layer. <i>Solar Rrl</i> , 2019 , 3, 1800289	7.1	14
121	Application of thermally coupled energy levels in Er ³⁺ doped CdMoO ₄ phosphors: Enhanced solid-state lighting and non-contact thermometry. <i>Materials Research Bulletin</i> , 2019 , 117, 63-71	5.1	13
120	Open Atmosphere-Processed Stable Perovskite Solar Cells Using Molecular Engineered, Dopant-Free, Highly Hydrophobic Polymeric Hole-Transporting Materials: Influence of Thiophene and Alkyl Chain on Power Conversion Efficiency. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 8560-8568	3.8	13
119	Property modulation of dithienosilole-based polymers via the incorporation of structural isomers of imide- and lactam-functionalized pyrrolo[3,4-c]pyrrole units for polymer solar cells. <i>Polymer</i> , 2015 , 65, 243-252	3.9	13
118	Colloidal GdVO ₄ :Eu ³⁺ @SiO ₂ nanocrystals for highly selective and sensitive detection of Cu ²⁺ ions. <i>Applied Surface Science</i> , 2018 , 433, 381-387	6.7	13
117	Luminescence and energy transfer in a color tunable CaY ₄ (SiO ₄) ₃ O:Ce ³⁺ , Mn ²⁺ , Tb ³⁺ phosphor for application in white LEDs. <i>RSC Advances</i> , 2016 , 6, 79317-79324	3.7	13
116	Hierarchical multi-level block copolymer patterns by multiple self-assembly. <i>Nanoscale</i> , 2019 , 11, 8433-8441	7.4	12
115	Synthesis and photoluminescence of novel 3D flower-like CaMoO ₄ architectures hierarchically self-assembled with tetragonal bipyramid nanocrystals. <i>Optical Materials</i> , 2015 , 43, 10-17	3.3	12
114	Benzodithiophene-Based Broad Absorbing Random Copolymers Incorporating Weak and Strong Electron Accepting Imide and Lactam Functionalized Pyrrolo[3,4-c]pyrrole Derivatives for Polymer Solar Cells. <i>Macromolecular Chemistry and Physics</i> , 2015 , 216, 996-1007	2.6	12
113	Eu ³⁺ -activated Ca ₃ Mo _{0.2} W _{0.8} O ₆ red-emitting phosphors: A near-ultraviolet and blue light excitable platform for solid-state lighting and thermometer. <i>Journal of Luminescence</i> , 2020 , 223, 117212 ^{3.8}	3.8	12
112	Effects of the incorporation of an additional pyrrolo[3,4-c]pyrrole-1,3-dione unit on the repeating unit of highly efficient large band gap polymers containing benzodithiophene and pyrrolo[3,4-c]pyrrole-1,3-dione derivatives. <i>Organic Electronics</i> , 2016 , 30, 253-264	3.5	12

111	Effect of La ³⁺ ion doping on the performance of Eu ²⁺ ions in novel Sr ₃ CeNa(PO ₄) ₂ SiO ₄ phosphors. <i>Journal of Alloys and Compounds</i> , 2017 , 724, 763-773	5.7	12
110	A novel conjugated polymer based on cyclopenta[def]phenanthrene backbone with spiro group. <i>Polymer</i> , 2008 , 49, 5643-5649	3.9	12
109	Molecular aggregation method for perovskite/fullerene bulk heterostructure solar cells. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 1326-1334	13	12
108	Dual-functional light-emitting perovskite solar cells enabled by soft-covered annealing process. <i>Nano Energy</i> , 2019 , 61, 251-258	17.1	11
107	Efficiency enhancements in non-fullerene acceptor-based organic solar cells by post-additive soaking. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 8805-8810	13	11
106	Tuning the physical properties of pyrrolo[3,4-c]pyrrole-1,3-dione-based highly efficient large band gap polymers via the chemical modification on the polymer backbone for polymer solar cells. <i>RSC Advances</i> , 2015 , 5, 99217-99227	3.7	11
105	Lead Acetate Assisted Interface Engineering for Highly Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 7186-7197	9.5	11
104	6-(2-Thienyl)-4H-thieno[3,2-b]indole based conjugated polymers with low bandgaps for organic solar cells. <i>Synthetic Metals</i> , 2016 , 213, 25-33	3.6	11
103	Bulk Heterojunction-Assisted Grain Growth for Controllable and Highly Crystalline Perovskite Films. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 31366-31373	9.5	11
102	One-Pot Exfoliation of Graphitic C N Quantum Dots for Blue QLEDs by Methylamine Intercalation. <i>Small</i> , 2019 , 15, e1902735	11	11
101	Efficient pyrrolo[3,4-c]pyrrole-1,3-dione-based wide band gap polymer for high-efficiency binary and ternary solar cells. <i>Polymer</i> , 2017 , 125, 182-189	3.9	11
100	Dual-Mode Manipulating Multicenter Photoluminescence in a Single-Phased BaLuSiO:Bi, Eu Phosphor to Realize White Light/Tunable Emissions. <i>Scientific Reports</i> , 2017 , 7, 15884	4.9	11
99	Syntheses and Characterization of Alkoxyphenyl-Substituted PCPP with Stabilized Blue Emission and Its Derivatives with Ketone Unit in the Main Chain. <i>Macromolecules</i> , 2008 , 41, 8324-8331	5.5	11
98	Synthesis and properties of various PPV derivatives with phenyl substituents. <i>Polymer</i> , 2008 , 49, 4559-4568	5.6	11
97	Palladium-Assisted Reaction of 2,2-Dialkylbenzimidazole and Its Implication on Organic Solar Cell Performances. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 14063-14075	3.8	10
96	Key chemical parameters related to the width of the charge transfer band and the emission intensity of 5D ₀ -7F ₂ in Eu ³⁺ doped Ln ₂ O ₃ . <i>Journal of Alloys and Compounds</i> , 2015 , 620, 324-328	5.7	10
95	Luminescence properties and energy transfer of Mn ⁴⁺ -doped double perovskite La ₂ ZnTiO ₆ phosphor. <i>Optical Materials</i> , 2020 , 106, 109980	3.3	10
94	Ca ₉ Na _{1/3} M ₂ (1-x)/ ₃ (PO ₄) ₇ :2x/3Eu ³⁺ (M = Gd, Y): A promising red-emitting phosphor without concentration quenching for optical display applications. <i>Journal of Luminescence</i> , 2018 , 194, 346-352	3.8	10

93	Tunable up-conversion luminescence from Er ³⁺ /Tm ³⁺ /Yb ³⁺ tri-doped Sr ₂ CeO ₄ phosphors. <i>Journal of Luminescence</i> , 2017 , 182, 240-245	3.8	10
92	Anthradithiophene-thiophene copolymers with broad UV-vis absorption for organic solar cells and field-effect transistors. <i>Journal of Polymer Science Part A</i> , 2012 , 50, 4119-4126	2.5	10
91	Side-chain influences on the properties of benzodithiophene-alt-di(thiophen-2-yl)quinoxaline polymers for fullerene-free organic solar cells. <i>Polymer</i> , 2019 , 172, 305-311	3.9	9
90	Regioselective 1,2,3-bisazfulleroid: doubly N-bridged bisimino-PCBMs for polymer solar cells. <i>Journal of Materials Chemistry</i> , 2012 , 22, 22958		9
89	Novel conjugated polymers employing the binding of polyfluorene derivatives and C ₆₀ . <i>Synthetic Metals</i> , 2009 , 159, 1529-1537	3.6	9
88	Efficiency enhancement in polymer optoelectronic devices by introducing titanium sub-oxide layer. <i>Current Applied Physics</i> , 2010 , 10, S528-S531	2.6	9
87	Crystal structure and two types of Eu ³⁺ -centered emission in Eu ³⁺ doped Ca ₂ V ₂ O ₇ . <i>Journal of Luminescence</i> , 2015 , 161, 318-322	3.8	8
86	Modulation of the properties of pyrrolo[3,4-c]pyrrole-1,4-dione based polymers containing 2,5-di(2-thienyl)pyrrole derivatives with different substitutions on the pyrrole unit. <i>New Journal of Chemistry</i> , 2015 , 39, 4658-4669	3.6	8
85	Photocurrent enhancement of an efficient large band gap polymer incorporating benzodithiophene and weak electron accepting pyrrolo[3,4-b]pyrrole-1,3-dione derivatives via the insertion of a strong electron accepting thieno[3,4-b]thiophene unit. <i>Polymer</i> , 2015 , 80, 95-103	3.9	8
84	Solution processable small molecules as efficient electron transport layers in organic optoelectronic devices. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 13501-13508	13	8
83	Photovoltaic polymers based on difluoroquinoxaline units with deep HOMO levels. <i>Journal of Polymer Science Part A</i> , 2018 , 56, 1489-1497	2.5	8
82	Conjugated polymers containing pyrimidine with electron withdrawing substituents for organic photovoltaics with high open-circuit voltage. <i>Polymer</i> , 2016 , 83, 50-58	3.9	8
81	Full-color tuning in europium doped phosphosilicate phosphors via adjusting crystal field modulation or excitation wavelength. <i>Journal of Alloys and Compounds</i> , 2019 , 770, 411-418	5.7	8
80	Full-color tuning by controlling the substitution of cations in europium doped Sr _{8-x} La _{2+x} (PO ₄) _{6-x} (SiO ₄) _x O ₂ phosphors. <i>Dyes and Pigments</i> , 2019 , 160, 145-150	4.6	8
79	Synthesis and characterization of low-bandgap copolymers based on dihexyl-2H-benzimidazole and terthiophene. <i>Synthetic Metals</i> , 2010 , 160, 2618-2622	3.6	8
78	Highly transparent polymer light-emitting diode using modified aluminum-doped zinc oxide top electrode. <i>Applied Physics Letters</i> , 2012 , 100, 133306	3.4	8
77	Luminescence and Energy Transfer Process in YNbO ₄ :Bi ³⁺ , Sm ³⁺ Phosphors. <i>Science of Advanced Materials</i> , 2017 , 9, 349-352	2.3	8
76	Enhanced photovoltaic performances of bis(pyrrolo[3,4-c]pyrrole-1,3-dione)-based wide band gap polymer via the incorporation of an appropriate spacer unit between pyrrolo[3,4-c]pyrrole-1,3-dione units. <i>Organic Electronics</i> , 2017 , 42, 34-41	3.5	7

75	Solution-processable ambipolar organic field-effect transistors with bilayer transport channels. <i>Polymer Journal</i> , 2020 , 52, 581-588	2.7	7
74	Synchronized-pressing fabrication of cost-efficient crystalline perovskite solar cells via intermediate engineering. <i>Nanoscale</i> , 2018 , 10, 9628-9633	7.7	7
73	Synthesis and characterization of dimethyl-benzimidazole based low bandgap copolymers for OPVs. <i>Synthetic Metals</i> , 2012 , 162, 988-994	3.6	7
72	Flexible light-emitting three-terminal device with color-controlled emission. <i>Organic Electronics</i> , 2009 , 10, 426-431	3.5	7
71	NUV light induced visible emission in Er ³⁺ -activated NaSrLa(MoO ₄)O ₃ phosphors for green LEDs and thermometer. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 1174-1186	3.8	7
70	Benzodithiophene based ternary copolymer containing covalently bonded pyrrolo[3,4-c]pyrrole-1,3-dione and benzothiadiazole for efficient polymer solar cells utilizing high energy sunlight. <i>Organic Electronics</i> , 2016 , 38, 283-291	3.5	7
69	Thiophene and thieno[3,2-b]thiophene bridged pyrrolo[3,4-c]pyrrole-1,3-dione-based wide band-gap polymers for fullerene and non-fullerene organic solar cells. <i>Organic Electronics</i> , 2018 , 63, 78-85	3.5	7
68	Effects of the incorporation of bithiophene instead of thiophene between the pyrrolo[3,4-c]pyrrole-1,3-dione units of a bis(pyrrolo[3,4-c]pyrrole-1,3-dione)-based polymer for polymer solar cells. <i>New Journal of Chemistry</i> , 2016 , 40, 10153-10160	3.6	6
67	Synthesis and characterization of 2H-benzimidazole- and terthiophene-based polymer for organic photovoltaics. <i>Synthetic Metals</i> , 2011 , 161, 307-312	3.6	6
66	Syntheses and characterization of new low-band gap polymers containing 4H-cyclopenta[def]phenanthrene unit and 4,7-di(thien-2-yl)-2H-benzimidazole-2-spirocyclohexane for photovoltaic device. <i>Synthetic Metals</i> , 2011 , 161, 1336-1342	3.6	6
65	Syntheses of pyrimidine-based polymers containing electron-withdrawing substituent with high open circuit voltage and applications for polymer solar cells. <i>Journal of Polymer Science Part A</i> , 2016 , 54, 771-784	2.5	6
64	Property modulation of ternary copolymer via the diverse arrangements of two different repeating units for polymer solar cells and thin film transistors. <i>Polymer</i> , 2016 , 95, 18-25	3.9	6
63	Curvature effects of electron-donating polymers on the device performance of non-fullerene organic solar cells. <i>Journal of Power Sources</i> , 2021 , 482, 229045	8.9	6
62	Enhanced efficiency and stability of polymer solar cells using solution-processed nickel oxide as hole transport material. <i>Current Applied Physics</i> , 2017 , 17, 1232-1237	2.6	5
61	Efficient Polymeric Donor for Both Visible and Near-Infrared-Absorbing Organic Solar Cells. <i>ACS Applied Energy Materials</i> , 2019 , 2, 4284-4291	6.1	5
60	Successful incorporation of optical spacer and additive solvent for enhancing the photocurrent of polymer solar cell. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 153, 131-137	6.4	5
59	Simultaneous realization of two approaches to white light in single-component phosphors. <i>Optics Express</i> , 2014 , 22, 25500-5	3.3	5
58	Increasing of stability depended on the position of alkoxy group in PPV. <i>Synthetic Metals</i> , 2011 , 161, 1186-1193	3.6	5

57	Synthesis and Photovoltaic Properties of Quinoxaline-Based Semiconducting Polymers with Fluoro Atoms. <i>Bulletin of the Korean Chemical Society</i> , 2014 , 35, 2245-2250	1.2	5
56	Kerf-Less Exfoliated Thin Silicon Wafer Prepared by Nickel Electrodeposition for Solar Cells. <i>Frontiers in Chemistry</i> , 2018 , 6, 600	5	5
55	Effects of replacing benzodithiophene with a benzothiadiazole derivative on an efficient wide band-gap benzodithiophene-alt-pyrrolo[3,4-c]pyrrole-1,3(2H,5H)-dione copolymer. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019 , 368, 162-167	4.7	5
54	Theoretical design and characterization of high efficient Sr ₉ Ln(PO ₄) ₇ : Eu ²⁺ phosphors. <i>Materials Research Bulletin</i> , 2020 , 127, 110856	5.1	5
53	Influence of thiophene and furan Bridge on the properties of poly(benzodithiophene-alt-bis(Bridge)pyrrolopyrrole-1,3-dione) for organic solar cell applications. <i>Polymer</i> , 2021 , 229, 123991	3.9	5
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44	Enhanced performance of ternary polymer solar cells via property modulation of co-absorbing wide band-gap polymers. <i>Journal of Power Sources</i> , 2020 , 471, 228457	8.9	3
43	Two new tercopolymers incorporating electron-rich benzodithiophene and electron-accepting pyrrolo[3,4-c]pyrrole-1,3-dione and difluorobenzothiadiazole derivatives for polymer solar cells. <i>Polymer Bulletin</i> , 2018 , 75, 239-253	2.4	3
42	Gate-enhanced photocurrent of (6,5) single-walled carbon nanotube based field effect transistor. <i>Carbon</i> , 2018 , 139, 709-715	10.4	3
41	Synthesis and Properties of Copolymer with Carbazole and F-Quinoxaline Units for OPVs. <i>Molecular Crystals and Liquid Crystals</i> , 2015 , 620, 100-106	0.5	3
40	Synthesis and characterization of polycyclopentaphenanthrene with carbazole or oxidiazole pendant units. <i>Polymer Journal</i> , 2012 , 44, 347-352	2.7	3

39	Synthesis and characterization of phenanthrothiadiazole-based conjugated polymer for photovoltaic device. <i>Synthetic Metals</i> , 2012 , 162, 1936-1943	3.6	3
38	Substituent position-induced color tunability in polymer light-emitting diodes. <i>Applied Physics Letters</i> , 2002 , 81, 1732-1734	3.4	3
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36	Imide-linked alkyl chain influence on the properties of pyrrole-based imide-functionalized polymers containing pyrrolo[3,4-c]pyrrole-1,3(2H,5H)-dione and benzodithiophene units for polymer solar cells. <i>Synthetic Metals</i> , 2016 , 220, 34-40	3.6	3
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33	Carrier losses in non-geminate charge-transferred states of nonfullerene acceptor-based organic solar cells. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021 , 250, 119227	4.4	3
32	Improved exciton dissociation efficiency by a carbon-quantum-dot doped workfunction modifying layer in polymer solar cells. <i>Current Applied Physics</i> , 2021 , 21, 140-146	2.6	3
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30	Opto-electrical, charge transport and photovoltaic property modulation of 2,5-di(2-thienyl)pyrrole-based polymers via the incorporation of alkyl, aryl and cyano groups on the pyrrole unit. <i>Polymer Bulletin</i> , 2015 , 72, 1899-1919	2.4	2
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28	Switchable polarity in polymer solar cells using conjugated polyelectrolyte. <i>Synthetic Metals</i> , 2014 , 188, 1-5	3.6	2
27	Pyrrolo[3,4-c]pyrrole-1,3-dione Based Wide Band Gap Polymers for Polymer Solar Cells. <i>Journal of Nanoscience and Nanotechnology</i> , 2017 , 17, 5556-5561	1.3	2
26	Rational design of efficient near-infrared photon conversion channel via dual-upconversion process for superior photocatalyst. <i>Carbon</i> , 2020 , 169, 111-117	10.4	2
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23	Synthesis and properties of mono- and di-fluoro-substituted 2,3-didodecylquinoxaline-based polymers for polymer solar cells. <i>Journal of Polymer Science Part A</i> , 2019 , 57, 545-552	2.5	2
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21	Synthesis and properties of thiophene- and quinoxaline-based random copolymers for organic photovoltaics. <i>Polymer Bulletin</i> , 2017 , 74, 2755-2766	2.4	1
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