Jin Young Kim

List of Publications by Year
in descending order

366 papers	27,206 citations	10956 71 h-index	7136 153 g-index
368 all docs	368 docs citations	368 times ranked	25033 citing authors

#	Article	IF	Citations
1	Efficient Tandem Polymer Solar Cells Fabricated by All-Solution Processing. Science, 2007, 317, 222-225.	6.0	3,142
2	Pseudo-halide anion engineering for Î±-FAPbI3 perovskite solar cells. Nature, 2021, 592, 381-385.	13.7	2,095
3	Processing Additives for Improved Efficiency from Bulk Heterojunction Solar Cells. Journal of the American Chemical Society, 2008, 130, 3619-3623.	6.6	1,511
4	High-Efficiency Perovskite Solar Cells. Chemical Reviews, 2020, 120, 7867-7918.	23.0	1,480
5	Conformal quantum dotâ€“SnO ₂ layers as electron transporters for efficient perovskite solar cells. Science, 2022, 375, 302-306.	6.0	872
6	High-Performance Solution-Processed Non-Fullerene Organic Solar Cells Based on Selenophene-Containing Perylene Bisimide Acceptor. Journal of the American Chemical Society, 2016, 138, 375-380.	6.6	643
7	Versatile surface plasmon resonance of carbon-dot-supported silver nanoparticles in polymer optoelectronic devices. Nature Photonics, 2013, 7, 732-738.	15.6	501
8	Cesium-doped methylammonium lead iodide perovskite light absorber for hybrid solar cells. Nano Energy, 2014, 7, 80-85.	8.2	459
9	Efficient, stable silicon tandem cells enabled by anion-engineered wide-bandgap perovskites. Science, 2020, 368, 155-160.	6.0	420
10	Soft network composite materials with deterministic and bio-inspired designs. Nature Communications, 2015, 6, 6566.	5.8	392
11	Boosting the Power Conversion Efficiency of Perovskite Solar Cells Using Selfâ€Organized Polymeric Hole Extraction Layers with High Work Function. Advanced Materials, 2014, 26, 6461-6466.	11.1	321
12	An ultra-thin, un-doped NiO hole transporting layer of highly efficient (16.4%) organicâ€“inorganic hybrid perovskite solar cells. Nanoscale, 2016, 8, 11403-11412.	2.8	307
13	Smallâ€Bandgap Polymer Solar Cells with Unprecedented Shortâ€Circuit Current Density and High Fill Factor. Advanced Materials, 2015, 27, 3318-3324.	11.1	294
14	Conjugated polyelectrolyte hole transport layer for inverted-type perovskite solar cells. Nature Communications, 2015, 6, 7348.	5.8	281
15	Mixed solvents for the optimization of morphology in solution-processed, inverted-type perovskite/fullerene hybrid solar cells. Nanoscale, 2014, 6, 6679.	2.8	275
16	Multipositional Silica-Coated Silver Nanoparticles for High-Performance Polymer Solar Cells. Nano Letters, 2013, 13, 2204-2208.	4.5	244
17	Combination of Titanium Oxide and a Conjugated Polyelectrolyte for Highâ€Performance Invertedâ€Type Organic Optoelectronic Devices. Advanced Materials, 2011, 23, 2759-2763.	11.1	242
18	Effect of the Molecular Weight of Poly(3â€hexylthiophene) on the Morphology and Performance of Polymer Bulk Heterojunction Solar Cells. Macromolecular Rapid Communications, 2007, 28, 1776-1780.	2.0	226

#	Article	IF	Citations
19	Alkyl Sideâ€Chain Engineering in Wideâ€Bandgap Copolymers Leading to Power Conversion Efficiencies over 10%. Advanced Materials, 2017, 29, 1604251.	11.1	213
20	Nb-Doped TiO₂: A New Compact Layer Material for TiO₂ Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2009, 113, 6878-6882.	1.5	210
21	Functionalized Methanofullerenes Used as n-Type Materials in Bulk-Heterojunction Polymer Solar Cells and in Field-Effect Transistors. Journal of the American Chemical Society, 2008, 130, 6444-6450.	6.6	208
22	Niâ€“NiO coreâ€“shell inverse opal electrodes for supercapacitors. Chemical Communications, 2011, 47, 5214.	2.2	202
23	High-Efficiency Colloidal Quantum Dot Photovoltaics via Robust Self-Assembled Monolayers. Nano Letters, 2015, 15, 7691-7696.	4.5	198
24	Capillary Printing of Highly Aligned Silver Nanowire Transparent Electrodes for High-Performance Optoelectronic Devices. Nano Letters, 2015, 15, 7933-7942.	4.5	196
25	Highly controllable transparent and conducting thin films using layer-by-layer assembly of oppositely charged reduced graphene oxides. Journal of Materials Chemistry, 2011, 21, 3438-3442.	6.7	194
26	Two-Step Solâ^'Gel Method-Based TiO₂ Nanoparticles with Uniform Morphology and Size for Efficient Photo-Energy Conversion Devices. Chemistry of Materials, 2010, 22, 1958-1965.	3.2	166
27	Amineâ€Based Polar Solvent Treatment for Highly Efficient Inverted Polymer Solar Cells. Advanced Materials, 2014, 26, 494-500.	11.1	159
28	Highâ€Performance Organic Optoelectronic Devices Enhanced by Surface Plasmon Resonance. Advanced Materials, 2011, 23, 5689-5693.	11.1	152
29	Improved Quantum Efficiency of Highly Efficient Perovskite BaSnO₃-Based Dye-Sensitized Solar Cells. ACS Nano, 2013, 7, 1027-1035.	7.3	150
30	Interplay of Intramolecular Noncovalent Coulomb Interactions for Semicrystalline Photovoltaic Polymers. Chemistry of Materials, 2015, 27, 5997-6007.	3.2	150
31	Ternary Organic Solar Cells Based on Two Highly Efficient Polymer Donors with Enhanced Power Conversion Efficiency. Advanced Energy Materials, 2016, 6, 1502109.	10.2	147
32	High-Temperatureâ€“Short-Time Annealing Process for High-Performance Large-Area Perovskite Solar Cells. ACS Nano, 2017, 11, 6057-6064.	7.3	142
33	Oxygenâ€Vacancyâ€Introduced BaSnO_{3â^'}_{Î´} Photoanodes with Tunable Band Structures for Efficient Solarâ€Driven Water Splitting. Advanced Materials, 2019, 31, e1903316.	11.1	140
34	High-efficiency polymer solar cells with a cost-effective quinoxaline polymer through nanoscale morphology control induced by practical processing additives. Energy and Environmental Science, 2013, 6, 1909.	15.6	137
35	Highly Efficient Polymer Light-Emitting Diodes Using Graphene Oxide as a Hole Transport Layer. ACS Nano, 2012, 6, 2984-2991.	7.3	127
36	Recent progress in indoor organic photovoltaics. Nanoscale, 2020, 12, 5792-5804.	2.8	126

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37	Doubleâ€Sided Junctions Enable Highâ€Performance Colloidalâ€Quantumâ€Dot Photovoltaics. Advanced Materials, 2016, 28, 4142-4148.	11.1	121
38	Band-gap-graded Cu2ZnSn(S1-x,Sex)4 Solar Cells Fabricated by an Ethanol-based, Particulate Precursor Ink Route. Scientific Reports, 2013, 3, 3069.	1.6	120
39	300% Enhancement of Carrier Mobility in Uniaxialâ€Oriented Perovskite Films Formed by Topotacticâ€Oriented Attachment. Advanced Materials, 2017, 29, 1606831.	11.1	120
40	Poly(fluorenevinylene) Derivative by Gilch Polymerization for Light-Emitting Diode Applications. Macromolecules, 2002, 35, 7532-7534.	2.2	119
41	Effects of Annealing Temperature on the Charge-Collection and Light-Harvesting Properties of TiO₂ Nanotube-Based Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 13433-13441.	1.5	114
42	Lowâ€Temperature Hydrothermal Synthesis of Pure BiFeO₃ Nanopowders Using Triethanolamine and Their Applications as Visibleâ€Light Photocatalysts. Journal of the American Ceramic Society, 2008, 91, 3753-3755.	1.9	112
43	Enhanced Efficiency of Single and Tandem Organic Solar Cells Incorporating a Diketopyrrolopyrroleâ€Based Lowâ€Bandgap Polymer by Utilizing Combined ZnO/Polyelectrolyte Electronâ€Transport Layers. Advanced Materials, 2013, 25, 4783-4788.	11.1	111
44	A Selenophene Analogue of PCDTBT: Selective Fine-Tuning of LUMO to Lower of the Bandgap for Efficient Polymer Solar Cells. Macromolecules, 2012, 45, 8658-8664.	2.2	110
45	General Strategy for Fabricating Transparent TiO₂ Nanotube Arrays for Dye-Sensitized Photoelectrodes: Illumination Geometry and Transport Properties. ACS Nano, 2011, 5, 2647-2656.	7.3	109
46	Silver-Based Nanoparticles for Surface Plasmon Resonance in Organic Optoelectronics. Particle and Particle Systems Characterization, 2015, 32, 164-175.	1.2	106
47	Fluorine Functionalized Graphene Nano Platelets for Highly Stable Inverted Perovskite Solar Cells. Nano Letters, 2017, 17, 6385-6390.	4.5	106
48	Graphene Oxide Nanoribbon as Hole Extraction Layer to Enhance Efficiency and Stability of Polymer Solar Cells. Advanced Materials, 2014, 26, 786-790.	11.1	102
49	In₂S₃ Atomic Layer Deposition and Its Application as a Sensitizer on TiO₂ Nanotube Arrays for Solar Energy Conversion. Journal of Physical Chemistry C, 2010, 114, 8032-8039.	1.5	100
50	Completely Transparent Conducting Oxide-Free and Flexible Dye-Sensitized Solar Cells Fabricated on Plastic Substrates. ACS Nano, 2015, 9, 3760-3771.	7.3	100
51	Ultrathin, lightweight and flexible perovskite solar cells with an excellent power-per-weight performance. Journal of Materials Chemistry A, 2019, 7, 1107-1114.	5.2	100
52	Semicrystalline Dâ€“A Copolymers with Different Chain Curvature for Applications in Polymer Optoelectronic Devices. Macromolecules, 2014, 47, 1604-1612.	2.2	95
53	An Organic Surface Modifier to Produce a High Work Function Transparent Electrode for High Performance Polymer Solar Cells. Advanced Materials, 2015, 27, 892-896.	11.1	94
54	Surface modification of metal oxide using ionic liquid molecules in hybrid organicâ€“inorganic optoelectronic devices. Journal of Materials Chemistry, 2011, 21, 2051.	6.7	93

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55	Zn₂SnO₄-Based Photoelectrodes for Organolead Halide Perovskite Solar Cells. Journal of Physical Chemistry C, 2014, 118, 22991-22994.	1.5	92
56	Single Component Organic Solar Cells Based on Oligothiopheneâ€Fullerene Conjugate. Advanced Functional Materials, 2017, 27, 1702474.	7.8	91
57	Water-Based Thixotropic Polymer Gel Electrolyte for Dye-Sensitized Solar Cells. ACS Nano, 2013, 7, 4050-4056.	7.3	89
58	Crystallographically preferred oriented TiO2 nanotube arrays for efficient photovoltaic energy conversion. Energy and Environmental Science, 2012, 5, 7989.	15.6	88
59	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. ACS Applied Materials & Interfaces, 2014, 6, 7523-7534.	4.0	88
60	Highly Efficient Copperâ€“Zincâ€“Tinâ€“Selenide (CZTSe) Solar Cells by Electrodeposition. ChemSusChem, 2014, 7, 1073-1077.	3.6	88
61	Influence of anatase-rutile phase transformation on dielectric properties of sol-gel derived TiO2 thin films. Journal of Electroceramics, 2006, 16, 447-451.	0.8	87
62	Highly durable and flexible dye-sensitized solar cells fabricated on plastic substrates: PVDF-nanofiber-reinforced TiO2 photoelectrodes. Energy and Environmental Science, 2012, 5, 8950.	15.6	87
63	Synthesis and Electroluminescence Properties of Poly(9,9-di-n-octylfluorenyl-2,7-vinylene) Derivatives for Light-Emitting Displayâ€. Macromolecules, 2003, 36, 3841-3847.	2.2	85
64	Investigation of Charge Carrier Behavior in High Performance Ternary Blend Polymer Solar Cells. Advanced Energy Materials, 2016, 6, 1600637.	10.2	85
65	Hot slot die coating for additive-free fabrication of high performance roll-to-roll processed polymer solar cells. Energy and Environmental Science, 2018, 11, 3248-3255.	15.6	85
66	Highly Efficient and Uniform 1â€…cm² Perovskite Solar Cells with an Electrochemically Deposited NiO_x Holeâ€Extraction Layer. ChemSusChem, 2017, 10, 2660-2667.	3.6	84
67	High-efficiency photovoltaic cells with wide optical band gap polymers based on fluorinated phenylene-alkoxybenzothiadiazole. Energy and Environmental Science, 2017, 10, 1443-1455.	15.6	84
68	Synergistic enhancement and mechanism study of mechanical and moisture stability of perovskite solar cells introducing polyethylene-imine into the CH₃NH₃PbI₃/HTM interface. Journal of Materials Chemistry A, 2015, 3, 22176-22182.	5.2	80
69	Carrier generation and transport in bulk heterojunction films processed with 1,8-octanedithiol as a processing additive. Journal of Applied Physics, 2008, 104, .	1.1	78
70	Effect of multi-armed triphenylamine-based hole transporting materials for high performance perovskite solar cells. Chemical Science, 2016, 7, 5517-5522.	3.7	78
71	A Three-Terminal Monolithic Perovskite/Si Tandem Solar Cell Characterization Platform. Joule, 2019, 3, 807-818.	11.7	78
72	Synthesis of a New Cross-Linkable Perfluorocyclobutane-Based Hole-Transport Material. Organic Letters, 2006, 8, 4703-4706.	2.4	73

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73	Design, Synthesis, and Electroluminescent Property of CNâ^'Poly(dihexylfluorenevinylene) for LEDs. Macromolecules, 2003, 36, 6970-6975.	2.2	71
74	Importance of 4-tert-Butylpyridine in Electrolyte for Dye-Sensitized Solar Cells Employing SnO₂ Electrode. Journal of Physical Chemistry C, 2012, 116, 22759-22766.	1.5	71
75	New Hybrid Hole Extraction Layer of Perovskite Solar Cells with a Planar pâ€"iâ€"n Geometry. Journal of Physical Chemistry C, 2015, 119, 27285-27290.	1.5	71
76	Stabilized Blue Emission from Organic Light-Emitting Diodes Using Poly(2,6-(4,4-bis(2-ethylhexyl)-4H-cyclopenta[def]phenanthrene)). Macromolecules, 2005, 38, 6285-6289.	2.2	70
77	Stabilized Polymers with Novel Indenoindene Backbone against Photodegradation for LEDs and Solar Cells. Macromolecules, 2008, 41, 7296-7305.	2.2	70
78	Redox-active charge carriers of conducting polymers as a tuner of conductivity and its potential window. Scientific Reports, 2013, 3, 2454.	1.6	70
79	Highly efficient plasmonic organic optoelectronic devices based on a conducting polymer electrode incorporated with silver nanoparticles. Energy and Environmental Science, 2013, 6, 1949.	15.6	69
80	Electroluminescence in polymer-fullerene photovoltaic cells. Applied Physics Letters, 2005, 86, 183502.	1.5	67
81	Nanoparticleâ€Enhanced Silverâ€Nanowire Plasmonic Electrodes for Highâ€Performance Organic Optoelectronic Devices. Advanced Materials, 2018, 30, e1800659.	11.1	67
82	Water Splitting Exceeding 17% Solar-to-Hydrogen Conversion Efficiency Using Solution-Processed Ni-Based Electrocatalysts and Perovskite/Si Tandem Solar Cell. ACS Applied Materials & Interfaces, 2019, 11, 33835-33843.	4.0	67
83	Engineering the morphology via processing additives in multiple all-polymer solar cells for improved performance. Journal of Materials Chemistry A, 2018, 6, 10421-10432.	5.2	65
84	Novel Electroluminescent Polymers with Fluoro Groups in Vinylene Units. Macromolecules, 2004, 37, 6711-6715.	2.2	63
85	Reduced Graphene Oxide (rGO)-Wrapped Fullerene (C₆₀) Wires. ACS Nano, 2011, 5, 8365-8371.	7.3	63
86	Improved Performance in Polymer Solar Cells Using Mixed PC₆₁BM/PC₇₁BM Acceptors. Advanced Energy Materials, 2015, 5, 1401687.	10.2	63
87	Interfacial electron accumulation for efficient homo-junction perovskite solar cells. Nano Energy, 2016, 28, 269-276.	8.2	63
88	Controlled synthesis of aligned Ni-NiO core-shell nanowire arrays on glass substrates as a new supercapacitor electrode. RSC Advances, 2012, 2, 8281.	1.7	62
89	Slotâ€Die and Rollâ€toâ€Roll Processed Single Junction Organic Photovoltaic Cells with the Highest Efficiency. Advanced Energy Materials, 2019, 9, 1901805.	10.2	62
90	Interface Engineering Driven Stabilization of Halide Perovskites against Moisture, Heat, and Light for Optoelectronic Applications. Advanced Energy Materials, 2020, 10, 2000768.	10.2	62

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91	Effects of heterojunction on photoelectrocatalytic properties of ZnOâ€“TiO2ZnOâ€“TiO2 films. International Journal of Hydrogen Energy, 2007, 32, 3137-3140.	3.8	61
92	Efficient Conventionalâ€•and Invertedâ€Type Photovoltaic Cells Using a Planar Alternating Polythiophene Copolymer. Chemistry - A European Journal, 2012, 18, 2551-2558.	1.7	61
93	Functional Multilayered Transparent Conducting Oxide Thin Films for Photovoltaic Devices. Journal of Physical Chemistry C, 2009, 113, 1083-1087.	1.5	60
94	Vivid and Fully Saturated Blue Light-Emitting Diodes Based on Ligand-Modified Halide Perovskite Nanocrystals. ACS Applied Materials & Interfaces, 2019, 11, 23401-23409.	4.0	60
95	Inverted Colloidal Quantum Dot Solar Cells. Advanced Materials, 2014, 26, 3321-3327.	11.1	59
96	Preparation of a Nanoporous CaCO3-Coated TiO2 Electrode and Its Application to a Dye-Sensitized Solar Cell. Langmuir, 2007, 23, 11907-11910.	1.6	58
97	A universal processing additive for high-performance polymer solar cells. RSC Advances, 2017, 7, 7476-7482.	1.7	58
98	In Situ Observation of the Stability of Anatase Nanoparticles and Their Transformation to Rutile in an Acidic Solution. Langmuir, 2004, 20, 11732-11737.	1.6	57
99	Syntheses and properties of electroluminescent polyfluorene-based conjugated polymers, containing oxadiazole and carbazole units as pendants, for LEDs. Polymer, 2005, 46, 12158-12165.	1.8	57
100	Near-complete charge separation in tailored BiVO4-based heterostructure photoanodes toward artificial leaf. Applied Catalysis B: Environmental, 2021, 293, 120217.	10.8	57
101	Ambipolar organic field-effect transistors fabricated using a composite of semiconducting polymer and soluble fullerene. Applied Physics Letters, 2006, 89, 153505.	1.5	56
102	Conjugated Polyelectrolytes as Efficient Hole Transport Layers in Perovskite Light-Emitting Diodes. ACS Nano, 2018, 12, 5826-5833.	7.3	56
103	Tailoring the Morphology and Structure of Nanosized Zn₂SiO₄: Mn²⁺ Phosphors Using the Hydrothermal Method and Their Luminescence Properties. Journal of Physical Chemistry C, 2010, 114, 10330-10335.	1.5	54
104	Highly Crystalline and Low Bandgap Donor Polymers for Efficient Polymer Solar Cells. Advanced Materials, 2012, 24, 538-542.	11.1	53
105	Easily Attainable Phenothiazine-Based Polymers for Polymer Solar Cells: Advantage of Insertion of S,S-dioxides into its Polymer for Inverted Structure Solar Cells. Macromolecules, 2012, 45, 1847-1857.	2.2	52
106	Nanoscopic Management of Molecular Packing and Orientation of Small Molecules by a Combination of Linear and Branched Alkyl Side Chains. ACS Nano, 2014, 8, 5988-6003.	7.3	52
107	Alkoxybenzothiadiazole-Based Fullerene and Nonfullerene Polymer Solar Cells with High Shunt Resistance for Indoor Photovoltaic Applications. ACS Applied Materials & Interfaces, 2018, 10, 3885-3894.	4.0	52
108	Efficient Exciton Diffusion in Organic Bilayer Heterojunctions with Nonfullerene Small Molecular Acceptors. ACS Energy Letters, 2020, 5, 1628-1635.	8.8	52

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109	Effect of Rubidium Incorporation on the Structural, Electrical, and Photovoltaic Properties of Methylammonium Lead Iodide-Based Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 41898-41905.	4.0	51
110	Green-solvent processable semiconducting polymers applicable in additive-free perovskite and polymer solar cells: molecular weights, photovoltaic performance, and thermal stability. Journal of Materials Chemistry A, 2018, 6, 5538-5543.	5.2	51
111	Nanowireâ€Based Threeâ€Dimensional Transparent Conducting Oxide Electrodes for Extremely Fast Charge Collection. Advanced Energy Materials, 2011, 1, 829-835.	10.2	50
112	Controlled Interfacial Electron Dynamics in Highly Efficient Zn₂SnO₄â€Based Dyeâ€Sensitized Solar Cells. ChemSusChem, 2014, 7, 501-509.	3.6	50
113	Simple Large-Scale Synthesis of Hydroxyapatite Nanoparticles: In Situ Observation of Crystallization Process. Langmuir, 2010, 26, 384-388.	1.6	49
114	Quinoxalineâ€“thiophene based thick photovoltaic devices with an efficiency of â¼8%. Journal of Materials Chemistry A, 2016, 4, 9967-9976.	5.2	49
115	Ladder-type heteroacenepolymers bearing carbazole and thiophene ring units and their use in field-effect transistors and photovoltaic cells. Journal of Materials Chemistry, 2011, 21, 843-850.	6.7	48
116	Rapid Dye Adsorption via Surface Modification of TiO₂ Photoanodes for Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 5201-5207.	4.0	48
117	Highly efficient perovskite solar cells based on mechanically durable molybdenum cathode. Nano Energy, 2015, 17, 131-139.	8.2	48
118	Photocurrent Extraction Efficiency near Unity in a Thick Polymer Bulk Heterojunction. Advanced Functional Materials, 2016, 26, 3324-3330.	7.8	48
119	Interfacial engineering for highly efficient organic solar cells. Current Applied Physics, 2017, 17, 370-391.	1.1	47
120	Study of Burnâ€In Loss in Green Solventâ€Processed Ternary Blended Organic Photovoltaics Derived from UVâ€Crosslinkable Semiconducting Polymers and Nonfullerene Acceptors. Advanced Energy Materials, 2019, 9, 1901829.	10.2	47
121	Tailoring of Energy Levels in D-Ï€-A Organic Dyes via Fluorination of Acceptor Units for Efficient Dye-Sensitized Solar Cells. Scientific Reports, 2015, 5, 7711.	1.6	45
122	Bulk Heterojunction Materials Composed of Poly(2,5-bis(3-tetradecylthiophen-2-yl)thieno[3,2-b]thiophene): Ultrafast Electron Transfer and Carrier Recombination. Journal of Physical Chemistry C, 2008, 112, 7853-7857.	1.5	44
123	Tailoring oriented TiO2 nanotube morphology for improved Li storage kinetics. Electrochimica Acta, 2013, 88, 123-128.	2.6	44
124	Spectroscopically tracking charge separation in polymerâ€‰:â€‰fullerene blends with a three-phase morphology. Energy and Environmental Science, 2015, 8, 2713-2724.	15.6	44
125	Enhancement of the photoelectric performance of dye-sensitized solar cells by using a CaCO3-coated TiO2 nanoparticle film as an electrode. Solar Energy Materials and Solar Cells, 2006, 90, 2405-2412.	3.0	43
126	Perturbation of the Electron Transport Mechanism by Proton Intercalation in Nanoporous TiO₂ Films. Nano Letters, 2012, 12, 2112-2116.	4.5	43

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127	Device Architectures for Enhanced Photon Recycling in Thinâ€Film Multijunction Solar Cells. Advanced Energy Materials, 2015, 5, 1400919.	10.2	41
128	Peroptronic devices: perovskite-based light-emitting solar cells. Energy and Environmental Science, 2017, 10, 1950-1957.	15.6	41
129	A synthetic approach to a fullerene-rich dendron and its linear polymer via ring-opening metathesis polymerization. Chemical Communications, 2011, 47, 3078.	2.2	40
130	Preparation of Cu2ZnSnS4 thin films via electrochemical deposition and rapid thermal annealing. Thin Solid Films, 2013, 546, 294-298.	0.8	40
131	Synthesis of fluorinated analogues of a practical polymer TQ for improved open-circuit voltages in polymer solar cells. Polymer Chemistry, 2014, 5, 2540.	1.9	40
132	Dithienogermoleâ€Containing Smallâ€Molecule Solar Cells with 7.3% Efficiency: Inâ€Depth Study on the Effects of Heteroatom Substitution of Si with Ge. Advanced Energy Materials, 2015, 5, 1402044.	10.2	40
133	Toward the Realization of A Practical Diketopyrrolopyrroleâ€Based Small Molecule for Improved Efficiency in Ternary BHJ Solar Cells. Macromolecular Rapid Communications, 2012, 33, 140-145.	2.0	39
134	Effects of Ionic Liquid Molecules in Hybrid PbS Quantum Dotâ€“Organic Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 1757-1760.	4.0	39
135	Plasmonic Transition via Interparticle Coupling of Au@Ag Coreâ€“Shell Nanostructures Sheathed in Double Hydrophilic Block Copolymer for High-Performance Polymer Solar Cell. Chemistry of Materials, 2015, 27, 4789-4798.	3.2	39
136	Pseudohalides in Leadâ€Based Perovskite Semiconductors. Advanced Materials, 2019, 31, e1807029.	11.1	39
137	Color-Tunable Electroluminescent Polymers by Substitutents on the Poly(p-phenylenevinylene) Derivatives for Light-Emitting Diodes. Chemistry of Materials, 2002, 14, 5090-5097.	3.2	37
138	Influence of Anataseâ€“Rutile Phase Transformation on Dielectric Properties of Solâ€“Gel Derived TiO2Thin Films. Japanese Journal of Applied Physics, 2005, 44, 6148-6151.	0.8	37
139	The effect of introducing a buffer layer to polymer solar cells on cell efficiency. Solar Energy Materials and Solar Cells, 2011, 95, 1119-1122.	3.0	37
140	Simultaneous Enhancement of Solar Cell Efficiency and Photostability via Chemical Tuning of Electron Donating Units in Diketopyrrolopyrrole-Based Pushâ€“Pull Type Polymers. Macromolecules, 2014, 47, 6270-6280.	2.2	37
141	A thermally stable, barium-stabilized Î±-CsPbI₃ perovskite for optoelectronic devices. Journal of Materials Chemistry A, 2019, 7, 21740-21746.	5.2	37
142	Bandgap Tailored Nonfullerene Acceptors for Low-Energy-Loss Near-Infrared Organic Photovoltaics. , 2020, 2, 395-402.		37
143	Organic photovoltaic cells based on conjugated polymer/fullerene composites. Current Applied Physics, 2001, 1, 139-143.	1.1	36
144	Highly Stable Bulk Perovskite for Blue LEDs with Anion-Exchange Method. Nano Letters, 2021, 21, 3473-3479.	4.5	36

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145	Surfaceâ€Tailored Medium Entropy Alloys as Radically Low Overpotential Oxygen Evolution Electrocatalysts. Small, 2022, 18, e2105611.	5.2	36
146	Indiumâ^'Tinâ^'Oxide-Based Transparent Conducting Layers for Highly Efficient Photovoltaic Devices. Journal of Physical Chemistry C, 2009, 113, 7443-7447.	1.5	35
147	Highly Efficient Red-Emitting Hybrid Polymer Light-Emitting Diodes via FÃ¶rster Resonance Energy Transfer Based on Homogeneous Polymer Blends with the Same Polyfluorene Backbone. ACS Applied Materials & Interfaces, 2013, 5, 5690-5695.	4.0	35
148	Photovoltaic properties of high efficiency plastic dye-sensitized solar cells employing interparticle binding agent â€œnanoglueâ€. Nanoscale, 2013, 5, 4711.	2.8	35
149	Enhanced Photovoltaic Properties and Long-Term Stability in Plasmonic Dye-Sensitized Solar Cells via Noncorrosive Redox Mediator. ACS Applied Materials & Interfaces, 2014, 6, 19191-19200.	4.0	35
150	High-Resolution Filtration Patterning of Silver Nanowire Electrodes for Flexible and Transparent Optoelectronic Devices. ACS Applied Materials & Interfaces, 2020, 12, 32154-32162.	4.0	35
151	Boosting Unassisted Alkaline Solar Water Splitting Using Silicon Photocathode with TiO₂ Nanorods Decorated by Edgeâ€Rich MoS₂ Nanoplates. Small, 2021, 17, e2103457.	5.2	35
152	Photovoltaic effects on the organic ambipolar field-effect transistors. Applied Physics Letters, 2007, 90, 063511.	1.5	34
153	Improved electron injection in polymer light-emitting diodes using anionic conjugated polyelectrolyte. Applied Physics Letters, 2008, 93, .	1.5	34
154	Replacing the metal oxide layer with a polymer surface modifier for high-performance inverted polymer solar cells. RSC Advances, 2014, 4, 4791-4795.	1.7	34
155	Solvent-free synthesis of Cu2ZnSnS4 nanocrystals: a facile, green, up-scalable route for low cost photovoltaic cells. Nanoscale, 2014, 6, 11703-11711.	2.8	34
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