Jae Woong Jung

List of Publications by Year
in descending order

71 papers	4,243 citations	136950 32 h-index	110387 64 g-index
71 all docs	71 docs citations	71 times ranked	5744 citing authors

#	Article	IF	Citations
1	Fluoroâ€Substituted nâ€Type Conjugated Polymers for Additiveâ€Free Allâ€Polymer Bulk Heterojunction Solar Cells with High Power Conversion Efficiency of 6.71%. Advanced Materials, 2015, 27, 3310-3317.	21.0	421
2	A Lowâ€Temperature, Solutionâ€Processable, Cuâ€Doped Nickel Oxide Holeâ€Transporting Layer via the Combustion Method for Highâ€Performance Thinâ€Film Perovskite Solar Cells. Advanced Materials, 2015, 27, 7874-7880.	21.0	405
3	On the morphology of polymerâ€based photovoltaics. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 1018-1044.	2.1	297
4	Highâ€Performance Semitransparent Perovskite Solar Cells with 10% Power Conversion Efficiency and 25% Average Visible Transmittance Based on Transparent CuSCN as the Holeâ€Transporting Material. Advanced Energy Materials, 2015, 5, 1500486.	19.5	221
5	Low-temperature processed high-performance flexible perovskite solar cells via rationally optimized solvent washing treatments. RSC Advances, 2014, 4, 62971-62977.	3.6	182
6	A high mobility conjugated polymer based on dithienothiophene and diketopyrrolopyrrole for organic photovoltaics. Energy and Environmental Science, 2012, 5, 6857.	30.8	171
7	Fluorination on both D and A units in Dâ€"A type conjugated copolymers based on difluorobithiophene and benzothiadiazole for highly efficient polymer solar cells. Energy and Environmental Science, 2015, 8, 2427-2434.	30.8	168
8	Semi-crystalline random conjugated copolymers with panchromatic absorption for highly efficient polymer solar cells. Energy and Environmental Science, 2013, 6, 3301.	30.8	165
9	Degradation and stability of polymer-based solar cells. Journal of Materials Chemistry, 2012, 22, 24265.	6.7	134
10	Synthesis of C60-end capped P3HT and its application for high performance of P3HT/PCBM bulk heterojunction solar cells. Journal of Materials Chemistry, 2010, 20, 3287.	6.7	116
11	Low-Bandgap Small Molecules as Non-Fullerene Electron Acceptors Composed of Benzothiadiazole and Diketopyrrolopyrrole for All Organic Solar Cells. Chemistry of Materials, 2015, 27, 6038-6043.	6.7	107
12	Enhanced Performance and Air Stability of Polymer Solar Cells by Formation of a Selfâ€Assembled Buffer Layer from Fullereneâ€Endâ€Capped Poly(ethylene glycol). Advanced Materials, 2011, 23, 1782-1787.	21.0	106
13	High-Efficiency Polymer Solar Cells with Water-Soluble and Self-Doped Conducting Polyaniline Graft Copolymer as Hole Transport Layer. Journal of Physical Chemistry C, 2010, 114, 633-637.	3.1	91
14	Medium Bandgap Conjugated Polymer for High Performance Polymer Solar Cells Exceeding 9% Power Conversion Efficiency. Advanced Materials, 2015, 27, 7462-7468.	21.0	82
15	Tailored electronic properties of Zr-doped SnO2 nanoparticles for efficient planar perovskite solar cells with marginal hysteresis. Nano Energy, 2019, 65, 104014.	16.0	74
16	Annealingâ€Free High Efficiency and Large Area Polymer Solar Cells Fabricated by a Roller Painting Process. Advanced Functional Materials, 2010, 20, 2355-2363.	14.9	73
17	Reduced energy loss in SnO₂/ZnO bilayer electron transport layer-based perovskite solar cells for achieving high efficiencies in outdoor/indoor environments. Journal of Materials Chemistry A, 2020, 8, 17163-17173.	10.3	72
18	A Small Molecule Composed of Dithienopyran and Diketopyrrolopyrrole as Versatile Electron Donor Compatible with Both Fullerene and Nonfullerene Electron Acceptors for High Performance Organic Solar Cells. Chemistry of Materials, 2015, 27, 4865-4870.	6.7	70

#	ARTICLE	IF	CITATIONS
19	Synthesis of pyridine-capped diketopyrrolopyrrole and its use as a building block of low band-gap polymers for efficient polymer solar cells. Chemical Communications, 2013, 49, 8495.	4.1	67
20	A low band-gap polymer based on unsubstituted benzo[1,2-b:4,5-bâ€²]dithiophene for high performance organic photovoltaics. Chemical Communications, 2012, 48, 6933.	4.1	66
21	Anthraceneâ€Based Medium Bandgap Conjugated Polymers for High Performance Polymer Solar Cells Exceeding 8% PCE Without Additive and Annealing Process. Advanced Energy Materials, 2015, 5, 1500065.	19.5	57
22	A solution-processed cobalt-doped nickel oxide for high efficiency inverted type perovskite solar cells. Journal of Power Sources, 2019, 412, 425-432.	7.8	55
23	Flexible and highly efficient perovskite solar cells with a large active area incorporating cobalt-doped poly(3-hexylthiophene) for enhanced open-circuit voltage. Journal of Materials Chemistry A, 2017, 5, 12158-12167.	10.3	54
24	Boosting Light Harvesting in Perovskite Solar Cells by Biomimetic Inverted Hemispherical Architectured Polymer Layer with High Haze Factor as an Antireflective Layer. ACS Applied Materials & Interfaces, 2018, 10, 13113-13123.	8.0	52
25	Effect of Molecular Orientation of Donor Polymers on Charge Generation and Photovoltaic Properties in Bulk Heterojunction Allâ€Polymer Solar Cells. Advanced Energy Materials, 2017, 7, 1601365.	19.5	51
26	Highly Crystalline Low Band Gap Polymer Based on Thieno[3,4-<i>c</i>]pyrrole-4,6-dione for High-Performance Polymer Solar Cells with a >400 nm Thick Active Layer. ACS Applied Materials & Interfaces, 2015, 7, 13666-13674.	8.0	44
27	Methylammonium Iodide-Mediated Controlled Crystal Growth of CsPbI₂Br Films for Efficient and Stable All-Inorganic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 36228-36236.	8.0	42
28	Development of Selfâ€Doped Conjugated Polyelectrolytes with Controlled Work Functions and Application to Hole Transport Layer Materials for Highâ€Performance Organic Solar Cells. Advanced Materials Interfaces, 2016, 3, 1500703.	3.7	41
29	A Solution-Processed Spinel CuCo₂O₄ as an Effective Hole Transport Layer for Efficient Perovskite Solar Cells with Negligible Hysteresis. ACS Sustainable Chemistry and Engineering, 2019, 7, 17661-17670.	6.7	40
30	Dual Passivation of SnO₂ by Tetramethylammonium Chloride for High-Performance CsPbI₂Br-Based Inorganic Perovskite Solar Cells. Chemistry of Materials, 2021, 33, 5850-5858.	6.7	39
31	Improved light harvesting efficiency of semitransparent organic solar cells enabled by broadband/omnidirectional subwavelength antireflective architectures. Journal of Materials Chemistry A, 2018, 6, 14769-14779.	10.3	37
32	Efficient planar heterojunction perovskite solar cells employing a solution-processed Zn-doped NiOX hole transport layer. Electrochimica Acta, 2018, 284, 253-259.	5.2	37
33	Three-dimensional molecular donors combined with polymeric acceptors for high performance fullerene-free organic photovoltaic devices. Journal of Materials Chemistry A, 2015, 3, 22162-22169.	10.3	33
34	Enhanced performance of polymer solar cells with PSSAâˆ’gâˆ’PANI/Graphene oxide composite as hole transport layer. Solar Energy Materials and Solar Cells, 2014, 130, 599-604.	6.2	32
35	Effective Dark Current Suppression for High-Detectivity Organic Near-Infrared Photodetectors Using a Non-Fullerene Acceptor. ACS Applied Materials & Interfaces, 2021, 13, 11144-11150.	8.0	32
36	Molecular doping of CuSCN for hole transporting layers in inverted-type planar perovskite solar cells. Inorganic Chemistry Frontiers, 2019, 6, 2158-2166.	6.0	31

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37	A low band-gap copolymer composed of thienyl substituted anthracene and diketopyrrolopyrrole compatible with multiple electron acceptors for high efficiency polymer solar cells. Polymer Chemistry, 2015, 6, 4013-4019.	3.9	26
38	The Investigation of the Silica-Reinforced Rubber Polymers with the Methoxy Type Silane Coupling Agents. Polymers, 2020, 12, 3058.	4.5	25
39	Investigation of high-performance perovskite nanocrystals for inkjet-printed color conversion layers with superior color purity. APL Photonics, 2021, 6, .	5.7	25
40	Facile Surface Engineering of Nickel Oxide Thin Film for Enhanced Power Conversion Efficiency of Planar Heterojunction Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 15495-15503.	6.7	23
41	Enhanced efficiency and ambient stability of planar heterojunction perovskite solar cells by using organic-inorganic double layer electron transporting material. Electrochimica Acta, 2019, 294, 337-344.	5.2	23
42	Polyaniline/Reduced Graphene Oxide Composites for Hole Transporting Layer of High-Performance Inverted Perovskite Solar Cells. Polymers, 2021, 13, 1281.	4.5	23
43	Efficient perovskite solar cells with negligible hysteresis achieved by solâ€“gel-driven spinel nickel cobalt oxide thin films as the hole transport layer. Journal of Materials Chemistry C, 2019, 7, 7288-7298.	5.5	22
44	Simultaneously enhanced efficiency and ambient stability of inorganic perovskite solar cells by employing tetramethylammonium chloride additive in CsPbI2Br. Journal of Materials Science and Technology, 2022, 102, 224-231.	10.7	22
45	Facile Post Treatment of Ag Nanowire/Polymer Composites for Flexible Transparent Electrodes and Thin Film Heaters. Polymers, 2021, 13, 586.	4.5	20
46	The development and investigation of highly stretchable conductive inks for 3-dimensional printed in-mold electronics. Organic Electronics, 2020, 85, 105881.	2.6	17
47	Reduced interface energy loss in non-fullerene organic solar cells using room temperature-synthesized SnO2 quantum dots. Journal of Materials Science and Technology, 2020, 52, 12-19.	10.7	17
48	A wide band gap polymer based on indacenodithieno[3,2-b]thiophene for high-performance bulk heterojunction polymer solar cells. Journal of Materials Chemistry A, 2017, 5, 712-719.	10.3	16
49	Enhanced moisture stability of mixed cation perovskite solar cells enabled by a room-temperature solution-processed organic-inorganic bilayer hole transport layer. Journal of Alloys and Compounds, 2020, 847, 156512.	5.5	16
50	CsCl-induced defect control of CsPbI2Br thin films for achieving open-circuit voltage of 1.33Â V in all-inorganic perovskite solar cells. Journal of Power Sources, 2021, 512, 230481.	7.8	16
51	Room-temperature synthesis of ZrSnO4 nanoparticles for electron transport layer in efficient planar hetrojunction perovskite solar cells. Journal of Materials Science and Technology, 2020, 42, 38-45.	10.7	15
52	Binary-mixed organic electron transport layers for planar heterojunction perovskite solar cells with high efficiency and thermal reliability. Chemical Engineering Journal, 2021, 420, 129678.	12.7	15
53	Silverâ€Nanowireâ€Embedded Photopolymer Films for Transparent Film Heaters with Ultraâ€Flexibility, Quick Thermal Response, and Mechanical Reliability. Advanced Electronic Materials, 2021, 7, 2000698.	5.1	15
54	On the role of carboxylated polythiophene in defect passivation of CsPbI ₂ Br surface for efficient and stable <scp>allâ€inorganic</scp> perovskite solar cells. International Journal of Energy Research, 2022, 46, 6012-6021.	4.5	13

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55	High performance polymer solar cells employing a low-temperature solution-processed organicâ€“inorganic hybrid electron transport layer. Journal of Materials Chemistry A, 2016, 4, 16612-16618.	10.3	12
56	Non-halogenated additive engineering for morphology optimization in environmental-friendly solvent processed non-fullerene organic solar cells. Organic Electronics, 2020, 86, 105893.	2.6	12
57	Green solvent engineering for environment-friendly fabrication of high-performance perovskite solar cells. Chemical Engineering Journal, 2021, 425, 131475.	12.7	12
58	Highâ€Performance Nonâ€Fullerene Organic Solar Cells Based on a Pair of Medium Band Gap Polymer Donor and Perylene Bisimide Derivative Acceptor. Macromolecular Chemistry and Physics, 2016, 217, 2647-2653.	2.2	11
59	High-Efficiency and Thermally Sustainable Perovskite Solar Cells with Sandpaper-Aided Flexible Haze/Antireflective Films. ACS Sustainable Chemistry and Engineering, 2019, 7, 12981-12989.	6.7	11
60	Ultra-flexible, stretchable, highly conductive and multi-functional textiles enabled by brush-painted PEDOT:PSS. Smart Materials and Structures, 2020, 29, 095002.	3.5	10
61	A Facile Solution Engineering of PEDOT:PSS-Coated Conductive Textiles for Wearable Heater Applications. Polymers, 2021, 13, 945.	4.5	9
62	A cascade bilayer electron transport layer toward efficient and stable <scp>Ruddlesdenâ€Popper</scp> perovskite solar cells. International Journal of Energy Research, 2022, 46, 8229-8239.	4.5	9
63	Densification, Crystallization, and Dielectric Properties of <scp><scp>AlN</scp></scp>,<scp><scp>BN</scp></scp>, and <scp><scp>Si</scp></scp>₃<scp><scp>N</scp></scp>₄ Fillerâ€Containing <scp>LTCC</scp> Materials. International Journal of Applied Ceramic Technology, 2013, 10, E25.	2.1	8
64	Synthesis and characterization of donorâ€“acceptor semiconducting polymers containing 4-(4-((2-ethylhexyl)oxy)phenyl)-4<i>H</i>-dithieno[3,2-<i>b</i>:2â€²,3â€²-<i>d</i>]pyrrole for organic solar cells. New Journal of Chemistry, 2020, 44, 16900-16912.	2.8	8
65	Easily Accessible Low Band Gap Polymer for Efficient Nonfullerene Polymer Solar Cells with a Low <i>E</i>_{loss} of 0.55 eV. ACS Applied Materials & Interfaces, 2019, 11, 5435-5440.	8.0	6
66	Chemically Driven Zero Shrinkage Dielectric Ceramics. Journal of the American Ceramic Society, 2012, 95, 1796-1798.	3.8	5
67	Efficient Inverted Solar Cells Using Benzotriazole-Based Small Molecule and Polymers. Polymers, 2021, 13, 393.	4.5	4
68	Synthesis and characterisation of dimeric triphenylmethane water-soluble dyes for high-speed inkjet printing. Dyes and Pigments, 2021, 196, 109737.	3.7	4
69	Investigation of the Chemical Structure of Ultra-Thin Polyimide Substrate for the Xenon Flash Lamp Lift-off Technology. Polymers, 2021, 13, 546.	4.5	3
70	ZrSnO4: A Solution-Processed Robust Electron Transport Layer of Efficient Planar-Heterojunction Perovskite Solar Cells. Nanomaterials, 2021, 11, 3090.	4.1	3
71	Synthesis and Characterization of Diketopyrrolopyrrole-Based Aggregation-Induced Emission Nanoparticles for Bioimaging. Molecules, 2022, 27, 2984.	3.8	2