Seo-Jin Ko

List of Publications by Year
in descending order

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63 papers	4,671 citations	147566 31 h-index	138251 58 g-index
63 all docs	63 docs citations	63 times ranked	6271 citing authors

#	Article	IF	Citations
1	Significant Dark Current Suppression in Organic Photodetectors Using Side Chain Fluorination of Conjugated Polymer (Adv. Funct. Mater. 4/2022). Advanced Functional Materials, 2022, 32, .	7.8	0
2	Low Voltageâ€Loss Organic Solar Cells Light the Way for Efficient Semitransparent Photovoltaics. Solar Rrl, 2022, 6, .	3.1	3
3	Improved photovoltaic performance of quinoxaline-based polymers by systematic modulation of electron-withdrawing substituents. Journal of Materials Chemistry C, 2022, 10, 10338-10346.	2.7	10
4	Boosting the efficiency of quasi-2D perovskites light-emitting diodes by using encapsulation growth method. Nano Energy, 2021, 80, 105511.	8.2	54
5	Temperature and Light Modulated Openâ€Circuit Voltage in Nonfullerene Organic Solar Cells with Different Effective Bandgaps. Advanced Energy Materials, 2021, 11, 2003091.	10.2	23
6	New 3, 8â€difluoro indoloindoleâ€based copolymers for organic solar cell. International Journal of Energy Research, 2021, 45, 7806-7813.	2.2	1
7	Recent progress of ultra-narrow-bandgap polymer donors for NIR-absorbing organic solar cells. Nanoscale Advances, 2021, 3, 4306-4320.	2.2	22
8	Effective Dark Current Suppression for High-Detectivity Organic Near-Infrared Photodetectors Using a Non-Fullerene Acceptor. ACS Applied Materials & Interfaces, 2021, 13, 11144-11150.	4.0	32
9	Microwave-Assisted Synthesis of Non-Fullerene Acceptors and Their Photovoltaic Studies for High-Performance Organic Solar Cells. ACS Applied Energy Materials, 2021, 4, 9816-9826.	2.5	3
10	The role of charge recombination to triplet excitons in organic solar cells. Nature, 2021, 597, 666-671.	13.7	225
11	Eco-compatible and highly efficient organic solar cells with an aggregation-controlled terpolymer strategy. Journal of Materials Chemistry A, 2021, 9, 27551-27559.	5.2	6
12	Modeling and implementation of tandem polymer solar cells using wideâ€bandgap front cells. , 2020, 2, 131-142.		9
13	Roll-to-roll compatible quinoxaline-based polymers toward high performance polymer solar cells. Journal of Materials Chemistry A, 2020, 8, 25208-25216.	5.2	14
14	Aesthetic and colorful: Dichroic polymer solar cells using high-performance Fabry-PÃ©rot etalon electrodes with a unique Sb2O3 cavity. Nano Energy, 2020, 77, 105146.	8.2	25
15	Design of narrow bandgap non-fullerene acceptors for photovoltaic applications and investigation of non-geminate recombination dynamics. Journal of Materials Chemistry C, 2020, 8, 15175-15182.	2.7	50
16	Composite Interlayer Consisting of Alcohol-Soluble Polyfluorene and Carbon Nanotubes for Efficient Polymer Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 14244-14253.	4.0	17
17	Quantifying the Nongeminate Recombination Dynamics in Nonfullerene Bulk Heterojunction Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901438.	10.2	115
18	Hall of Fame Article: Solution-Processed Semitransparent Organic Photovoltaics: From Molecular Design to Device Performance (Adv. Mater. 30/2019). Advanced Materials, 2019, 31, 1970219.	11.1	21

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19	Morphological and Optical Engineering for High-Performance Polymer Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 4705-4711.	4.0	6
20	Solutionâ€Processed Semitransparent Organic Photovoltaics: From Molecular Design to Device Performance. Advanced Materials, 2019, 31, e1900904.	11.1	168
21	Quantifying and Understanding Voltage Losses Due to Nonradiative Recombination in Bulk Heterojunction Organic Solar Cells with Low Energetic Offsets. Advanced Energy Materials, 2019, 9, 1901077.	10.2	69
22	Side-Chain Engineering of Nonfullerene Acceptors for Near-Infrared Organic Photodetectors and Photovoltaics. ACS Energy Letters, 2019, 4, 1401-1409.	8.8	182
23	Bandgap Narrowing in Nonâ€Fullerene Acceptors: Single Atom Substitution Leads to High Optoelectronic Response Beyond 1000 nm. Advanced Energy Materials, 2018, 8, 1801212.	10.2	125
24	Measuring the competition between bimolecular charge recombination and charge transport in organic solar cells under operating conditions. Energy and Environmental Science, 2018, 11, 3019-3032.	15.6	59
25	Design of Nonfullerene Acceptors with Nearâ€Infrared Light Absorption Capabilities. Advanced Energy Materials, 2018, 8, 1801209.	10.2	95
26	A universal processing additive for high-performance polymer solar cells. RSC Advances, 2017, 7, 7476-7482.	1.7	58
27	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
28	Semi-crystalline A1â€“Dâ€“A2-type copolymers for efficient polymer solar cells. Polymer Journal, 2017, 49, 141-148.	1.3	6
29	Solar Cells: Investigation of Charge Carrier Behavior in High Performance Ternary Blend Polymer Solar Cells (Adv. Energy Mater. 19/2016). Advanced Energy Materials, 2016, 6, .	10.2	0
30	Investigation of Charge Carrier Behavior in High Performance Ternary Blend Polymer Solar Cells. Advanced Energy Materials, 2016, 6, 1600637.	10.2	85
31	Photocurrent Extraction Efficiency near Unity in a Thick Polymer Bulk Heterojunction. Advanced Functional Materials, 2016, 26, 3324-3330.	7.8	48
32	Quinoxalineâ€“thiophene based thick photovoltaic devices with an efficiency of â¼8%. Journal of Materials Chemistry A, 2016, 4, 9967-9976.	5.2	49
33	Benzodithiophene-thiophene-based photovoltaic polymers with different side-chains. Journal of Polymer Science Part A, 2015, 53, 854-862.	2.5	15
34	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
35	Synergistic photocurrent addition in hybrid quantum dot: Bulk heterojunction solar cells. Nano Energy, 2015, 13, 491-499.	8.2	18
36	Smallâ€Bandgap Polymer Solar Cells with Unprecedented Shortâ€Circuit Current Density and High Fill Factor. Advanced Materials, 2015, 27, 3318-3324.	11.1	294

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37	Capillary Printing of Highly Aligned Silver Nanowire Transparent Electrodes for High-Performance Optoelectronic Devices. Nano Letters, 2015, 15, 7933-7942.	4.5	196
38	Interplay of Intramolecular Noncovalent Coulomb Interactions for Semicrystalline Photovoltaic Polymers. Chemistry of Materials, 2015, 27, 5997-6007.	3.2	150
39	Optimal top electrodes for inverted polymer solar cells. Physical Chemistry Chemical Physics, 2015, 17, 2152-2159.	1.3	27
40	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
41	Improved Performance in Polymer Solar Cells Using Mixed PC₆₁BM/PC₇₁BM Acceptors. Advanced Energy Materials, 2015, 5, 1401687.	10.2	63
42	Synthesis of the Copolymer Based on Diketopyrrolopyrrole with Didecyl Chain for OPVs. Molecular Crystals and Liquid Crystals, 2014, 600, 88-98.	0.4	1
43	Amineâ€Based Polar Solvent Treatment for Highly Efficient Inverted Polymer Solar Cells. Advanced Materials, 2014, 26, 494-500.	11.1	159
44	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
45	High-yield synthesis of single-crystal silicon nanoparticles as anode materials of lithium ion batteries via photosensitizer-assisted laser pyrolysis. Journal of Materials Chemistry A, 2014, 2, 18070-18075.	5.2	32
46	Size tailoring of aqueous germanium nanoparticle dispersions. Nanoscale, 2014, 6, 10156-10160.	2.8	21
47	Semi-crystalline photovoltaic polymers with efficiency exceeding 9% in a â¼300 nm thick conventional single-cell device. Energy and Environmental Science, 2014, 7, 3040-3051.	15.6	600
48	Semicrystalline Dâ€“A Copolymers with Different Chain Curvature for Applications in Polymer Optoelectronic Devices. Macromolecules, 2014, 47, 1604-1612.	2.2	95
49	Vapor Coating Method Using Small-Molecule Organic Surface Modifiers to Replace N-Type Metal Oxide Layers in Inverted Polymer Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 6504-6509.	4.0	4
50	Versatile surface plasmon resonance of carbon-dot-supported silver nanoparticles in polymer optoelectronic devices. Nature Photonics, 2013, 7, 732-738.	15.6	501
51	Acid-functionalized fullerenes used as interfacial layer materials in inverted polymer solar cells. Organic Electronics, 2013, 14, 3138-3145.	1.4	25
52	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
53	Multipositional Silica-Coated Silver Nanoparticles for High-Performance Polymer Solar Cells. Nano Letters, 2013, 13, 2204-2208.	4.5	244
54	Redox-active charge carriers of conducting polymers as a tuner of conductivity and its potential window. Scientific Reports, 2013, 3, 2454.	1.6	70

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55	Synthesis of a conjugated copolymer with benzodithiophene and benzimidazole units. Polymer Journal, 2013, 45, 555-559.	1.3	1
56	Dithieno[3,2â€b:2â€²,3â€²â€d]pyrrole and Benzothiadiazoleâ€Based Semicrystalline Copolymer for Photovoltaic Devices with Indeneâ€C₆₀ Bisadduct. Macromolecular Chemistry and Physics, 2013, 214, 2083-2090.	1.1	7
57	Pyrrolo[3,2-b]pyrrole-Based Copolymers as Donor Materials for Organic Photovoltaics. Bulletin of the Korean Chemical Society, 2013, 34, 3399-3404.	1.0	0
58	Multifunctional quinoxaline containing small molecules with multiple electron-donating moieties: Solvatochromic and optoelectronic properties. Synthetic Metals, 2012, 162, 1169-1176.	2.1	31
59	Synthesis of the pyrrolo[3,2-b]pyrrole-based copolymer with enhanced open circuit voltage. Synthetic Metals, 2012, 162, 2288-2293.	2.1	13
60	Highly Efficient Polymer Light-Emitting Diodes Using Graphene Oxide as a Hole Transport Layer. ACS Nano, 2012, 6, 2984-2991.	7.3	127
61	Molecular engineering of conjugated polymers for solar cells and fieldâ€effect transistors: Sideâ€chain versus mainâ€chain electron acceptors. Journal of Polymer Science Part A, 2012, 50, 271-279.	2.5	6
62	Multifunctional Conjugated Polymers with Mainâ€Chain Donors and Sideâ€Chain Acceptors for Dye Sensitized Solar Cells (DSSCs) and Organic Photovoltaic Cells (OPVs). Macromolecular Rapid Communications, 2011, 32, 1809-1814.	2.0	16
63	Influence of an Amide-Functionalized Monomeric Unit on the Morphology and Electronic Properties of Non-Fullerene Polymer Solar Cells. International Journal of Precision Engineering and Manufacturing - Green Technology, 0, , 1.	2.7	1