

# Seo-Jin Ko

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Semi-crystalline photovoltaic polymers with efficiency exceeding 9% in a $\sim$ 300 nm thick conventional single-cell device. <i>Energy and Environmental Science</i> , 2014, 7, 3040-3051.	15.6	600
2	Versatile surface plasmon resonance of carbon-dot-supported silver nanoparticles in polymer optoelectronic devices. <i>Nature Photonics</i> , 2013, 7, 732-738.	15.6	501
3	Small-Bandgap Polymer Solar Cells with Unprecedented Short-Circuit Current Density and High Fill Factor. <i>Advanced Materials</i> , 2015, 27, 3318-3324.	11.1	294
4	Multipositional Silica-Coated Silver Nanoparticles for High-Performance Polymer Solar Cells. <i>Nano Letters</i> , 2013, 13, 2204-2208.	4.5	244
5	The role of charge recombination to triplet excitons in organic solar cells. <i>Nature</i> , 2021, 597, 666-671.	13.7	225
6	Capillary Printing of Highly Aligned Silver Nanowire Transparent Electrodes for High-Performance Optoelectronic Devices. <i>Nano Letters</i> , 2015, 15, 7933-7942.	4.5	196
7	Side-Chain Engineering of Nonfullerene Acceptors for Near-Infrared Organic Photodetectors and Photovoltaics. <i>ACS Energy Letters</i> , 2019, 4, 1401-1409.	8.8	182
8	Solution-Processed Semitransparent Organic Photovoltaics: From Molecular Design to Device Performance. <i>Advanced Materials</i> , 2019, 31, e1900904.	11.1	168
9	Amine-Based Polar Solvent Treatment for Highly Efficient Inverted Polymer Solar Cells. <i>Advanced Materials</i> , 2014, 26, 494-500.	11.1	159
10	Interplay of Intramolecular Noncovalent Coulomb Interactions for Semicrystalline Photovoltaic Polymers. <i>Chemistry of Materials</i> , 2015, 27, 5997-6007.	3.2	150
11	Highly Efficient Polymer Light-Emitting Diodes Using Graphene Oxide as a Hole Transport Layer. <i>ACS Nano</i> , 2012, 6, 2984-2991.	7.3	127
12	Bandgap Narrowing in Non-Fullerene Acceptors: Single Atom Substitution Leads to High Optoelectronic Response Beyond 1000 nm. <i>Advanced Energy Materials</i> , 2018, 8, 1801212.	10.2	125
13	Quantifying the Nongeminate Recombination Dynamics in Nonfullerene Bulk Heterojunction Organic Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1901438.	10.2	115
14	Semicrystalline D-A Copolymers with Different Chain Curvature for Applications in Polymer Optoelectronic Devices. <i>Macromolecules</i> , 2014, 47, 1604-1612.	2.2	95
15	Design of Nonfullerene Acceptors with Near-Infrared Light Absorption Capabilities. <i>Advanced Energy Materials</i> , 2018, 8, 1801209.	10.2	95
16	An Organic Surface Modifier to Produce a High Work Function Transparent Electrode for High Performance Polymer Solar Cells. <i>Advanced Materials</i> , 2015, 27, 892-896.	11.1	94
17	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> , 2014, 6, 7523-7534.	4.0	88
18	Investigation of Charge Carrier Behavior in High Performance Ternary Blend Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1600637.	10.2	85

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19	High-efficiency photovoltaic cells with wide optical band gap polymers based on fluorinated phenylene-alkoxybenzothiadiazole. <i>Energy and Environmental Science</i> , 2017, 10, 1443-1455.	15.6	84
20	Redox-active charge carriers of conducting polymers as a tuner of conductivity and its potential window. <i>Scientific Reports</i> , 2013, 3, 2454.	1.6	70
21	Highly efficient plasmonic organic optoelectronic devices based on a conducting polymer electrode incorporated with silver nanoparticles. <i>Energy and Environmental Science</i> , 2013, 6, 1949.	15.6	69
22	Quantifying and Understanding Voltage Losses Due to Nonradiative Recombination in Bulk Heterojunction Organic Solar Cells with Low Energetic Offsets. <i>Advanced Energy Materials</i> , 2019, 9, 1901077.	10.2	69
23	Improved Performance in Polymer Solar Cells Using Mixed PC <sub>61</sub> BM/PC <sub>71</sub> BM Acceptors. <i>Advanced Energy Materials</i> , 2015, 5, 1401687.	10.2	63
24	Measuring the competition between bimolecular charge recombination and charge transport in organic solar cells under operating conditions. <i>Energy and Environmental Science</i> , 2018, 11, 3019-3032.	15.6	59
25	A universal processing additive for high-performance polymer solar cells. <i>RSC Advances</i> , 2017, 7, 7476-7482.	1.7	58
26	Boosting the efficiency of quasi-2D perovskites light-emitting diodes by using encapsulation growth method. <i>Nano Energy</i> , 2021, 80, 105511.	8.2	54
27	Design of narrow bandgap non-fullerene acceptors for photovoltaic applications and investigation of non-geminate recombination dynamics. <i>Journal of Materials Chemistry C</i> , 2020, 8, 15175-15182.	2.7	50
28	Quinoxaline-thiophene based thick photovoltaic devices with an efficiency of ~48%. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9967-9976.	5.2	49
29	Photocurrent Extraction Efficiency near Unity in a Thick Polymer Bulk Heterojunction. <i>Advanced Functional Materials</i> , 2016, 26, 3324-3330.	7.8	48
30	Plasmonic Transition via Interparticle Coupling of Au@Ag Core-Shell Nanostructures Sheathed in Double Hydrophilic Block Copolymer for High-Performance Polymer Solar Cell. <i>Chemistry of Materials</i> , 2015, 27, 4789-4798.	3.2	39
31	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> , 2014, 2, 18070-18075.	5.2	32
32	Effective Dark Current Suppression for High-Detectivity Organic Near-Infrared Photodetectors Using a Non-Fullerene Acceptor. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 11144-11150.	4.0	32
33	Multifunctional quinoxaline containing small molecules with multiple electron-donating moieties: Solvatochromic and optoelectronic properties. <i>Synthetic Metals</i> , 2012, 162, 1169-1176.	2.1	31
34	Optimal top electrodes for inverted polymer solar cells. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 2152-2159.	1.3	27
35	Acid-functionalized fullerenes used as interfacial layer materials in inverted polymer solar cells. <i>Organic Electronics</i> , 2013, 14, 3138-3145.	1.4	25
36	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> , 2020, 77, 105146.	8.2	25

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37	Temperature and Light Modulated Open-Circuit Voltage in Nonfullerene Organic Solar Cells with Different Effective Bandgaps. <i>Advanced Energy Materials</i> , 2021, 11, 2003091.	10.2	23
38	Recent progress of ultra-narrow-bandgap polymer donors for NIR-absorbing organic solar cells. <i>Nanoscale Advances</i> , 2021, 3, 4306-4320.	2.2	22
39	Size tailoring of aqueous germanium nanoparticle dispersions. <i>Nanoscale</i> , 2014, 6, 10156-10160.	2.8	21
40	Hall of Fame Article: Solution-Processed Semitransparent Organic Photovoltaics: From Molecular Design to Device Performance ( <i>Adv. Mater.</i> 30/2019). <i>Advanced Materials</i> , 2019, 31, 1970219.	11.1	21
41	Synergistic photocurrent addition in hybrid quantum dot: Bulk heterojunction solar cells. <i>Nano Energy</i> , 2015, 13, 491-499.	8.2	18
42	Composite Interlayer Consisting of Alcohol-Soluble Polyfluorene and Carbon Nanotubes for Efficient Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 14244-14253.	4.0	17
43	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> , 2011, 32, 1809-1814.	2.0	16
44	Benzodithiophene-thiophene-based photovoltaic polymers with different side-chains. <i>Journal of Polymer Science Part A</i> , 2015, 53, 854-862.	2.5	15
45	Roll-to-roll compatible quinoxaline-based polymers toward high performance polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 25208-25216.	5.2	14
46	Synthesis of the pyrrolo[3,2-b]pyrrole-based copolymer with enhanced open circuit voltage. <i>Synthetic Metals</i> , 2012, 162, 2288-2293.	2.1	13
47	Improved photovoltaic performance of quinoxaline-based polymers by systematic modulation of electron-withdrawing substituents. <i>Journal of Materials Chemistry C</i> , 2022, 10, 10338-10346.	2.7	10
48	Modeling and implementation of tandem polymer solar cells using wide-bandgap front cells. , 2020, 2, 131-142.		9
49	Dithieno[3,2-b:2',3'-d']pyrrole and Benzothiadiazole-Based Semicrystalline Copolymer for Photovoltaic Devices with Indene Bisadduct. <i>Macromolecular Chemistry and Physics</i> , 2013, 214, 2083-2090.	1.1	7
50	Molecular engineering of conjugated polymers for solar cells and field-effect transistors: Side-chain versus main-chain electron acceptors. <i>Journal of Polymer Science Part A</i> , 2012, 50, 271-279.	2.5	6
51	Semi-crystalline A1-A2-type copolymers for efficient polymer solar cells. <i>Polymer Journal</i> , 2017, 49, 141-148.	1.3	6
52	Morphological and Optical Engineering for High-Performance Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 4705-4711.	4.0	6
53	Eco-compatible and highly efficient organic solar cells with an aggregation-controlled terpolymer strategy. <i>Journal of Materials Chemistry A</i> , 2021, 9, 27551-27559.	5.2	6
54	Vapor Coating Method Using Small-Molecule Organic Surface Modifiers to Replace N-Type Metal Oxide Layers in Inverted Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 6504-6509.	4.0	4

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55	Microwave-Assisted Synthesis of Non-Fullerene Acceptors and Their Photovoltaic Studies for High-Performance Organic Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 9816-9826.	2.5	3
56	Low Voltage Loss Organic Solar Cells Light the Way for Efficient Semitransparent Photovoltaics. <i>Solar Rrl</i> , 2022, 6, .	3.1	3
57	Synthesis of a conjugated copolymer with benzodithiophene and benzimidazole units. <i>Polymer Journal</i> , 2013, 45, 555-559.	1.3	1
58	Synthesis of the Copolymer Based on Diketopyrrolopyrrole with Didecyl Chain for OPVs. <i>Molecular Crystals and Liquid Crystals</i> , 2014, 600, 88-98.	0.4	1
59	New 3, 8-difluoro indoloindole-based copolymers for organic solar cell. <i>International Journal of Energy Research</i> , 2021, 45, 7806-7813.	2.2	1
60	Influence of an Amide-Functionalized Monomeric Unit on the Morphology and Electronic Properties of Non-Fullerene Polymer Solar Cells. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 0, , 1.	2.7	1
61	Solar Cells: Investigation of Charge Carrier Behavior in High Performance Ternary Blend Polymer Solar Cells ( <i>Adv. Energy Mater.</i> 19/2016). <i>Advanced Energy Materials</i> , 2016, 6, .	10.2	0
62	Pyrrolo[3,2-b]pyrrole-Based Copolymers as Donor Materials for Organic Photovoltaics. <i>Bulletin of the Korean Chemical Society</i> , 2013, 34, 3399-3404.	1.0	0
63	Significant Dark Current Suppression in Organic Photodetectors Using Side Chain Fluorination of Conjugated Polymer ( <i>Adv. Funct. Mater.</i> 4/2022). <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	0