

Sooncheol Kwon

List of Publications by Year in descending order

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40
papers

1,741
citations

471061

17
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276539

41
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43
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43
docs citations

43
times ranked

3343
citing authors

#	ARTICLE	IF	CITATIONS
1	Bulk Heterojunction Organic Solar Cells: Five Core Technologies for Their Commercialization. <i>Advanced Materials</i> , 2016, 28, 7821-7861.	11.1	404
2	Efficient planar-heterojunction perovskite solar cells achieved via interfacial modification of a sol-gel ZnO electron collection layer. <i>Journal of Materials Chemistry A</i> , 2014, 2, 17291-17296.	5.2	274
3	Controlling Molecular Ordering in Aqueous Conducting Polymers Using Ionic Liquids. <i>Advanced Materials</i> , 2016, 28, 8625-8631.	11.1	149
4	Synthesis and Photovoltaic Properties of Cyclopentadithiophene-Based Low Bandgap Copolymers That Contain Electron-Withdrawing Thiazole Derivatives. <i>Chemistry - A European Journal</i> , 2010, 16, 3743-3752.	1.7	112
5	High-Performance Integrated Perovskite and Organic Solar Cells with Enhanced Fill Factors and Near-Infrared Harvesting. <i>Advanced Materials</i> , 2016, 28, 3159-3165.	11.1	84
6	Effect of Processing Additives on Organic Photovoltaics: Recent Progress and Future Prospects. <i>Advanced Energy Materials</i> , 2017, 7, 1601496.	10.2	71
7	Optically transparent semiconducting polymer nanonetwork for flexible and transparent electronics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 14261-14266.	3.3	67
8	Organic Single-Crystal Semiconductor Films on a Millimeter Domain Scale. <i>Advanced Materials</i> , 2015, 27, 6870-6877.	11.1	59
9	Self-assembly of interfacial and photoactive layers via one-step solution processing for efficient inverted organic solar cells. <i>Nanoscale</i> , 2013, 5, 11587.	2.8	48
10	Selenium-Substituted Non-Fullerene Acceptors: A Route to Superior Operational Stability for Organic Bulk Heterojunction Solar Cells. <i>ACS Nano</i> , 2021, 15, 7700-7712.	7.3	36
11	One-Step Sixfold Cyanation of Benzothiadiazole Acceptor Units for Air-Stable High-Performance n-Type Organic Field-Effect Transistors. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5970-5977.	7.2	34
12	Template-mediated nano-crystallite networks in semiconducting polymers. <i>Nature Communications</i> , 2014, 5, 4183.	5.8	31
13	Large-Area Nonfullerene Organic Solar Cell Modules Fabricated by a Temperature-Independent Printing Method. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 41877-41885.	4.0	30
14	Synergistic Effect of Processing Additives and Optical Spacers in Bulk Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2012, 2, 1420-1424.	10.2	27
15	Molecular understanding of a π -conjugated polymer/solid-state ionic liquid complex as a highly sensitive and selective gas sensor. <i>Journal of Materials Chemistry C</i> , 2020, 8, 15268-15276.	2.7	25
16	In situ studies of the molecular packing dynamics of bulk-heterojunction solar cells induced by the processing additive 1-chloronaphthalene. <i>Journal of Materials Chemistry A</i> , 2015, 3, 7719-7726.	5.2	24
17	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	23
18	Bias-Modulated Multicolor Discrimination Enabled by an Organic-Inorganic Hybrid Perovskite Photodetector with a p-n-i-p Configuration. <i>Laser and Photonics Reviews</i> , 2020, 14, 2000305.	4.4	21

#	ARTICLE	IF	CITATIONS
19	The Role of Long Alkyl Group Spacers in Glycolated Copolymers for High-Performance Organic Electrochemical Transistors. <i>Advanced Materials</i> , 2022, 34, e2202574.	11.1	21
20	Optimized phase separation in low-bandgap polymer:fullerene bulk heterojunction solar cells with criteria of solvent additives. <i>Nano Energy</i> , 2016, 30, 200-207.	8.2	18
21	Efficient Charge Carrier Injection and Balance Achieved by Low Electrochemical Doping in Solution-Processed Polymer Light-Emitting Diodes. <i>Advanced Functional Materials</i> , 2019, 29, 1904092.	7.8	18
22	Efficient Charge Extraction in Thick Bulk Heterojunction Solar Cells through Infiltrated Diffusion Doping. <i>Advanced Energy Materials</i> , 2014, 4, 1301502.	10.2	17
23	Semiconducting Polymers with Nanocrystallites Interconnected via Boron-Doped Carbon Nanotubes. <i>Nano Letters</i> , 2014, 14, 7100-7106.	4.5	17
24	Reversible Polymorphic Transition and Hysteresis-Driven Phase Selectivity in Single-Crystalline C ₈ BTBT Rods. <i>Small</i> , 2020, 16, e1906109.	5.2	16
25	D- ^h -type narrow-bandgap small-molecule photovoltaic donors: pre-synthesis virtual screening using density functional theory. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 15054-15059.	1.3	15
26	Impact of Initial Bulk Heterojunction Morphology on Operational Stability of Polymer:Fullerene Photovoltaic Cells. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801763.	1.9	12
27	Direct Observation of Confinement Effects of Semiconducting Polymers in Polymer Blend Electronic Systems. <i>Advanced Science</i> , 2021, 8, 2100332.	5.6	12
28	Enhancing hole carrier injection via low electrochemical doping on circularly polarized polymer light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2022, 10, 9512-9520.	2.7	11
29	Efficient bulk heterojunction organic solar cell with antireflective subwavelength structure. <i>Applied Surface Science</i> , 2015, 332, 716-719.	3.1	9
30	Synthesis and photovoltaic property of copolymers with phenanthrothiadiazole moiety. <i>Solar Energy Materials and Solar Cells</i> , 2012, 105, 229-236.	3.0	8
31	Molecular-level electrochemical doping for fine discrimination of volatile organic compounds in organic chemiresistors. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16884-16891.	5.2	8
32	Improvement of perovskite crystallinity by omnidirectional heat transfer via radiative thermal annealing. <i>RSC Advances</i> , 2019, 9, 14868-14875.	1.7	6
33	Direct observation of continuous networks of sol-gel processed metal oxide thin film for organic and perovskite photovoltaic modules with long-term stability. <i>Journal of Materials Chemistry A</i> , 2020, 8, 18659-18667.	5.2	6
34	Synthesis and characterization of phenanthrothiadiazole-based conjugated polymer for photovoltaic device. <i>Synthetic Metals</i> , 2012, 162, 1936-1943.	2.1	5
35	Spirobifluorene-based non-fullerene acceptors for the environmentally benign process. <i>Dyes and Pigments</i> , 2020, 180, 108369.	2.0	4
36	Solid-State Ionic Liquid: Key to Efficient Detection and Discrimination in Organic Semiconductor Gas Sensors. <i>ACS Applied Electronic Materials</i> , 2021, 3, 2152-2163.	2.0	4

#	ARTICLE	IF	CITATIONS
37	Anion-Induced Catalytic Reaction in a Solution-Processed Molybdenum Oxide for Efficient Inverted Ternary Organic Photovoltaics. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	3
38	Enhanced Photo-Response of Mos 2 Photodetectors by a Laterally Aligned SiO 2 Nanoribbon Array Substrate. <i>ChemNanoMat</i> , 2019, 5, 1272-1279.	1.5	2
39	Enhanced p-Type Work Function Tunability Induced by Electrostatic Molecular Alignment and Surface Coverage in Conjugated Small-Molecule Electrolyte. <i>ACS Applied Electronic Materials</i> , 2019, 1, 2566-2573.	2.0	2
40	One-Step Sixfold Cyanation of Benzothiadiazole Acceptor Units for Air-Stable High-Performance n-Type Organic Field-Effect Transistors. <i>Angewandte Chemie</i> , 2021, 133, 6035-6042.	1.6	2