Joo Hyun Kim

List of Publications by Year
in descending order

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119	1,792	279798	345221
papers	citations	23 h-index	36 g-index

121	121	121	2333
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of the Side Chain Functionality of the Conjugated Polyelectrolytes as a Cathode Interlayer Material on the Photovoltaic Performances. Macromolecular Research, 2022, 30, 146-151.	2.4	13
2	Ion transport through layered hydrogels for low-frequency energy harvesting toward self-powered chemical systems. Journal of Materials Chemistry A, 2022, 10, 11881-11892.	10.3	1
3	Efficiency enhancement of organic solar cell by small molecule electrolyte based on naphthalene diimide as an electron transport layer. Molecular Crystals and Liquid Crystals, 2022, 742, 69-78.	0.9	7
4	Novel conjugated polymers based on cyclopenta[c]thiophene-4,6(5H)-dione for efficient polymer solar cells. Journal of Power Sources, 2022, 542, 231737.	7.8	7
5	Selective ion transport through three-dimensionally interconnected nanopores of quaternized block copolymer membranes for energy harvesting application. Soft Matter, 2021, 17, 3700-3708.	2.7	5
6	N-Phenyl Cinnamamide Derivatives Protect Hepatocytes against Oxidative Stress by Inducing Cellular Glutathione Synthesis via Nuclear Factor (Erythroid-Derived 2)-Like 2 Activation. Molecules, 2021, 26, 1027.	3.8	2
7	Enhanced photovoltaic performance of quinoxaline-based donor-acceptor type polymers with monocyano substituent. Journal of Power Sources, 2021, 491, 229588.	7.8	15
8	Water-Repellent Perovskites Induced by a Blend of Organic Halide Salts for Efficient and Stable Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 33172-33181.	8.0	7
9	Simple methoxy-substituted quinoxaline-based D-A type polymers for nonfullerene polymer solar cells. Dyes and Pigments, 2021, 192, 109346.	3.7	6
10	Investigating the effect of diverse structural variation of conjugated polymer electrolytes as the interlayer on photovoltaic properties. Chemical Engineering Journal, 2021, 420, 129895.	12.7	17
11	Enhancement in charge extraction and moisture stability of perovskite solar cell via infiltration of charge transport material in grain boundaries. Journal of Power Sources, 2021, 506, 230212.	7.8	6
12	Carbazole-Based Polyimide as a Hole-Transporting Material for Optoelectronic Applications. Macromolecular Research, 2021, 29, 735-742.	2.4	7
13	Effect of interface modification in polymer solar cells: An in-depth investigation of the structural variation of organic dye for interlayer material. Dyes and Pigments, 2020, 173, 107927.	3.7	20
14	Small-molecule electrolytes with different ionic functionalities as a cathode buffer layer for polymer solar cells. Journal of Materials Chemistry C, 2020, 8, 15183-15188.	5.5	3
15	Synthesis of A-D-A type quinoxaline-based small molecules for organic photovoltaic cells. Molecular Crystals and Liquid Crystals, 2020, 705, 7-14.	0.9	1
16	Synthesis of quinoxaline-based D-A type conjugated polymers for photovoltaic applications. Molecular Crystals and Liquid Crystals, 2020, 705, 15-21.	0.9	1
17	Small molecular electrolytes as the interlayer for enhanced performance of organic solar cellsExperimental. Molecular Crystals and Liquid Crystals, 2020, 705, 22-27.	0.9	0
18	Synthesis and characterization of new dyes based on chromone malononitrile as the electron withdrawing group and their photovoltaic effect. Molecular Crystals and Liquid Crystals, 2020, 705, 28-34.	0.9	2

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19	High performance cyano-substituted quinoxaline-based polymers for both fullerene and nonfullerene polymer solar cells. Journal of Materials Chemistry A, 2020, 8, 19513-19521.	10.3	23
20	Synthesis of benzothiadiazole-based small molecule and its photovoltaic property. Molecular Crystals and Liquid Crystals, 2020, 707, 101-109.	0.9	3
21	Bilateral Interface Engineering for Efficient and Stable Perovskite Solar Cells Using Phenylethylammonium Iodide. ACS Applied Materials & Interfaces, 2020, 12, 24827-24836.	8.0	27
22	2D Perovskite Seeding Layer for Efficient Airâ€Processable and Stable Planar Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2003081.	14.9	48
23	Lead Acetate Assisted Interface Engineering for Highly Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 7186-7197.	8.0	20
24	Effect of Fluorine Atom on Photovoltaic Properties of Triphenylamine-Substituted Quinoxaline-Based D-A Type Polymers. Macromolecular Research, 2020, 28, 1297-1303.	2.4	15
25	Effect of conjugated polymer electrolytes with diverse acid derivatives as a cathode buffer layer on photovoltaic properties. Journal of Materials Chemistry A, 2020, 8, 4562-4569.	10.3	16
26	Simple Approach to Overcome Thickness Tolerance of Interlayer without Sacrificing the Performances of Polymer Solar Cells. Advanced Materials Interfaces, 2019, 6, 1900797.	3.7	6
27	Synthesis and Characterization of Benzothiadiazole and Dicyanovinylindandione Based Small-Molecular Conjugated Materials and Their Photovoltaic Properties. Macromolecular Research, 2019, 27, 1261-1267.	2.4	7
28	Synthesis of Quinoxaline-Based Small Molecules Possessing Multiple Electron-Withdrawing Moieties for Photovoltaic Applications. Macromolecular Research, 2019, 27, 1268-1274.	2.4	5
29	Effect of multiple electron-withdrawing substituents on photovoltaic properties of quinoxaline-based polymers. Molecular Crystals and Liquid Crystals, 2019, 685, 14-21.	0.9	2
30	Enhanced photovoltaic performance of quinoxaline-based small molecules through incorporating trifluoromethyl substituents. Molecular Crystals and Liquid Crystals, 2019, 685, 22-28.	0.9	1
31	Smallâ€Molecule Electrolyte: Simple Approach to Overcome Thickness Tolerance of Interlayer without Sacrificing the Performances of Polymer Solar Cells (Adv. Mater. Interfaces 18/2019). Advanced Materials Interfaces, 2019, 6, 1970115.	3.7	0
32	New small molecule electrolytes based on tosylate anion for organic solar cells. Molecular Crystals and Liquid Crystals, 2019, 687, 47-52.	0.9	1
33	Synthesis of quinoxaline-based polymers with multiple electron-withdrawing groups for polymer solar cells. Journal of Industrial and Engineering Chemistry, 2019, 73, 192-197.	5.8	35
34	Synthesis of Cyano-Substituted Conjugated Polymers for Photovoltaic Applications. Polymers, 2019, 11, 746.	4.5	5
35	Enhanced open-circuit voltages of trifluoromethylated quinoxaline-based polymer solar cells. Organic Electronics, 2019, 65, 363-369.	2.6	8
36	Synthesis of Conjugated Materials Based on Benzodithiophene - Benzothiadazole and Their Application of Organic Solar Cells. Macromolecular Research, 2018, 26, 552-556.	2.4	10

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37	New A-D-A type small molecules based on benzodithiophene derivative for organic solar cells. Molecular Crystals and Liquid Crystals, 2018, 660, 66-71.	0.9	4
38	Thermoelectric properties of solution-processed antimony-doped tin oxide thin films. Thin Solid Films, 2018, 646, 92-97.	1.8	9
39	Highly efficient Ternary Solar Cells of 10.2% with Core/Shell Quantum Dots via FRET Effect (Solar RRL) Tj ETQq1 1 0.784314 rgBT /Ov	5.8	6
40	Synthesis of Trifluoromethylated Quinoxalineâ€Based Polymers for Photovoltaic Applications. Macromolecular Rapid Communications, 2018, 39, e1800260.	3.9	10
41	Trans crystallization behavior and strong reinforcement effect of cellulose nanocrystals on reinforced poly(butylene succinate) nanocomposites. RSC Advances, 2018, 8, 15389-15398.	3.6	37
42	Alcohol-soluble conjugated oligomers as the cathode interfacial layer in polymer solar cells. Molecular Crystals and Liquid Crystals, 2018, 660, 60-65.	0.9	2
43	Organic electrolyte hybridized ZnO as the electron transport layer for inverted polymer solar cells. Journal of Industrial and Engineering Chemistry, 2018, 65, 175-179.	5.8	9
44	Organic Electrolytes Doped ZnO Layer as the Electron Transport Layer for Bulk Heterojunction Polymer Solar Cells. Solar Rrl, 2018, 2, 1800086.	5.8	22
45	Highly efficient Ternary Solar Cells of 10.2% with Core/Shell Quantum Dots via FRET Effect. Solar Rrl, 2018, 2, 1800077.	5.8	21
46	Clustered assembly of Au nanoparticles from spherical diblock copolymer micelles encapsulating Au nanoparticle. Journal of Applied Polymer Science, 2017, 134, .	2.6	1
47	Step-by-step improvement in photovoltaic properties of fluorinated quinoxaline-based low-band-gap polymers. Organic Electronics, 2017, 47, 14-23.	2.6	28
48	Synthesis of low bandgap small molecules containing fluorinated benzothiadiazole and phenothiazine for photovoltaic applications. Molecular Crystals and Liquid Crystals, 2017, 653, 27-32.	0.9	1
49	Cathode modification by the electrostatically self-assembled poly(4-vinylpyridine) derivative for enhancing the performance of polymer solar cells. Molecular Crystals and Liquid Crystals, 2017, 653, 72-77.	0.9	2
50	Investigation of the effect of 2,6-pyridinedimethanol as the cathode buffer layer on the photovoltaic properties. Molecular Crystals and Liquid Crystals, 2017, 653, 44-49.	0.9	1
51	Synthesis and characterization conjugated oligomer based on phenothiazine derivative. Molecular Crystals and Liquid Crystals, 2017, 653, 78-83.	0.9	1
52	A-Ï€-D-Ï€-A type oligomer based on carbazole and benzothiadiazole for organic solar cells. Molecular Crystals and Liquid Crystals, 2017, 655, 166-172.	0.9	1
53	Solution-processed small-molecule organic solar cells based on diketopyrrolopyrrole and perlyene derivatives with coplanar structures. Molecular Crystals and Liquid Crystals, 2016, 635, 40-44.	0.9	2
54	A-D-A type conjugated oligomers based on benzothiadiazole and their photovoltaic applications. Synthetic Metals, 2016, 221, 127-133.	3.9	7

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55	Properties of inverted polymer solar cells based on novel small molecular electrolytes as the cathode buffer layer. Organic Electronics, 2016, 39, 163-167.	2.6	15
56	Fluorinated benzothiadiazole-based small molecules for photovoltaic applications. Synthetic Metals, 2016, 220, 455-461.	3.9	17
57	Selfâ€assembled Poly(4â€vinylpyridine) As an Interfacial Layer for Polymer Solar Cells. Bulletin of the Korean Chemical Society, 2016, 37, 13-18.	1.9	8
58	A Simple Approach to Fabricate an Efficient Inverted Polymer Solar Cell with a Novel Small Molecular Electrolyte as the Cathode Buffer Layer. ACS Applied Materials & Interfaces, 2016, 8, 32992-32997.	8.0	21
59	Cathode modification of polymer solar cells by ultrahydrophobic polyelectrolyte. Molecular Crystals and Liquid Crystals, 2016, 635, 6-11.	0.9	1
60	ZnO-free Inverted Polymer Solar Cells Based on New Viologen Derivative as a Cathode Buffer Layer. Applied Chemistry for Engineering, 2016, 27, 512-515.	0.2	3
61	Synthesis of Conjugated Oligomer Based on Benzothiadiazole and Its Application of Organic Solar Cells. Porrime, 2016, 40, 960.	0.2	0
62	A conjugated low band gap diketopyrrolopyrrole and dibenzosilole-based polymer for organic solar cell. Synthetic Metals, 2015, 210, 201-207.	3.9	4
63	Effect of Polyelectrolyte Electron Collection Layer Counteranion on the Properties of Polymer Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 3335-3341.	8.0	43
64	Degradation kinetics for photocatalytic reaction of methyl orange over Al-doped ZnO nanoparticles. Journal of Industrial and Engineering Chemistry, 2015, 25, 199-206.	5.8	93
65	Effect of side chain arrangement of conjugated polyelectrolytes buffer layer on the photovoltaic properties. Organic Electronics, 2015, 25, 85-91.	2.6	13
66	Investigation of the property change of polymer solar cells by changing counter anions in polyviologen as a cathode buffer layer. Macromolecular Research, 2015, 23, 177-182.	2.4	11
67	Synthesis and characterization of conjugated oligoelectrolytes based on fluorene and carbazole derivative and application of polymer solar cell as a cathode buffer layer. Macromolecular Research, 2015, 23, 367-376.	2.4	21
68	Cathode modification of polymer solar cells by electrostatically self-assembled zwitterionic non-conjugated polyelectrolyte. Synthetic Metals, 2015, 209, 441-446.	3.9	12
69	Coreâ€“Corona Functionalization of Diblock Copolymer Micelles by Heterogeneous Metal Nanoparticles for Dual Modality in Chemical Reactions. ACS Applied Materials & Interfaces, 2015, 7, 18778-18785.	8.0	15
70	Enhanced efficiency in polymer solar cells by incorporation of phenothiazine-based conjugated polymer electrolytes. Organic Electronics, 2015, 16, 18-25.	2.6	5
71	Effect of Phthalimide in 2,1,3-Benzooxadiazole Based Copolymer on the Performances of Solar Cells. Molecular Crystals and Liquid Crystals, 2014, 598, 120-128.	0.9	1
72	Preparation of Highly Dispersed Gold Nanoparticles on Organosilane Modified Graphene Nanosheets. Molecular Crystals and Liquid Crystals, 2014, 602, 126-133.	0.9	2

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73	Diketopyrrolopyrrole-based Small Molecule for Application in Solution Processed Organic Solar Cells. Molecular Crystals and Liquid Crystals, 2014, 598, 111-119.	0.9	2
74	Study on Î±-alumina precursors prepared using different ammonium salt precipitants. Journal of Industrial and Engineering Chemistry, 2014, 20, 1269-1275.	5.8	22
75	Enhancing the efficiency of opto-electronic devices by the cathode modification. Journal of Materials Chemistry C, 2014, 2, 3820-3825.	5.5	28
76	Investigation of the effect of conjugated oligoelectrolyte as a cathode buffer layer on the photovoltaic properties. Synthetic Metals, 2014, 198, 122-130.	3.9	18
77	Effect of self-assembled monolayer treated ZnO as an electron transporting layer on the photovoltaic properties of inverted type polymer solar cells. Synthetic Metals, 2014, 187, 113-117.	3.9	26
78	Effect of Self-Assembled Monolayer Treated ZnO on the Photovoltaic Properties of Inverted Polymer Solar Cells. Bulletin of the Korean Chemical Society, 2014, 35, 569-574.	1.9	8
79	Photovoltaic properties of low band gap polymer based on phenanthrene and diketopyrrolopyrrole. Synthetic Metals, 2013, 176, 41-46.	3.9	13
80	Synthesis and characterization of thermally cross-linkable trimer based on triphenylamine. Macromolecular Research, 2013, 21, 321-326.	2.4	10
81	Pyromellitic Diimideâ€“Ethynylene-Based Homopolymer Film as an N-Channel Organic Field-Effect Transistor Semiconductor. ACS Macro Letters, 2013, 2, 664-669.	4.8	38
82	Synthesis and Characterization of Ï€-Conjugated Polymers Based on 2-arylbenzimidazole and 4,7-di-thiophene-2-yl-4,5,6,7-tetrahydro-benzo[1,2,5]thiadiazole. Molecular Crystals and Liquid Crystals, 2013, 581, 31-37.	0.9	3
83	Enhanced Performance in Inverted Polymer Solar Cells with Dâ€“Ï€â€“Aâ€Type Molecular Dye Incorporated on ZnO Buffer Layer. ChemSusChem, 2013, 6, 1445-1454.	6.8	33
84	Inverted Type Polymer Solar Cells with Self-Assembled Monolayer Treated ZnO. Journal of Physical Chemistry C, 2013, 117, 2646-2652.	3.1	89
85	Improved photovoltaic performance by enhanced crystallinity of poly(3-hexyl)thiophene. Organic Electronics, 2013, 14, 3046-3051.	2.6	14
86	Effect of the number of thiophene rings in polymers with 2,1,3-benzooxadiazole core on the photovoltaic properties. Organic Electronics, 2013, 14, 2673-2681.	2.6	29
87	Interfacial layer material derived from dialkylviologen and solâ€“gel chemistry for polymer solar cells. Organic Electronics, 2013, 14, 995-1001.	2.6	26
88	Nonconjugated Anionic Polyelectrolyte as an Interfacial Layer for the Organic Optoelectronic Devices. ACS Applied Materials & Interfaces, 2013, 5, 6508-6513.	8.0	45
89	Synthesis of Pb-Substituted LaCoO₃ Nanoparticles by Microwave Process and Their Photocatalytic Activity Under Visible Light Irradiation. Journal of Nanoscience and Nanotechnology, 2013, 13, 6160-6164.	0.9	9
90	Synthesis and Characterization of Ï€-Conjugated Polymer Based on Phthalimide Derivative and its Application for Polymer Solar Cells. Porrime, 2013, 37, 694-701.	0.2	2

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91	Synthesis and Characterization of Thermally Cross-Linkable Oligophenothiazine. Molecular Crystals and Liquid Crystals, 2012, 567, 178-186.	0.9	0
92	Relationship between HOMO energy level and open circuit voltage of polymer solar cells. Organic Electronics, 2012, 13, 2185-2191.	2.6	22
93	Synthesis, optical and electrochemical properties of in-situ thermally cross-linkable oligo(10H-alkylphenothiazine). Synthetic Metals, 2012, 162, 70-78.	3.9	12
94	Improvement of efficiency of polymer solar cell by incorporation of the planar shaped monomer in low band gap polymer. Synthetic Metals, 2012, 162, 768-774.	3.9	23
95	Polyviologen derivatives as an interfacial layer in polymer solar cells. Solar Energy Materials and Solar Cells, 2012, 107, 1-8.	6.2	56
96	Annealing-free Poly(3-hexylthiophene):[6,6]-phenyl-C61-butyric acid methyl ester-based organic solar cells. Current Applied Physics, 2012, 12, 908-910.	2.4	7
97	Hole Injection/Transport Materials Derived from Heck and Solâ^'Gel Chemistry for Application in Solution-Processed Organic Electronic Devices. Journal of the American Chemical Society, 2011, 133, 1375-1382.	13.7	69
98	Synthesis and Characterization of Di-hexyl-fluorene and Triphenylamine Based Copolymers Containing 1,3,4-Oxadiazole Pendants. Molecular Crystals and Liquid Crystals, 2011, 538, 118-126.	0.9	4
99	Ultrathin TiO₂ Films on ZnO Electron-Collecting Layers of Inverted Organic Solar Cell. Journal of Physical Chemistry C, 2011, 115, 21517-21520.	3.1	65
100	Spray-coated organic solar cells with large-area of 12.25cm2. Solar Energy Materials and Solar Cells, 2011, 95, 852-855.	6.2	77
101	Di-aryl substituted poly(cyclopenta[def]phenanthrene) derivatives containing carbazole and triphenylamine units in the main chain for organic light-emitting diodes. Macromolecular Research, 2011, 19, 589-598.	2.4	17
102	Synthesis, Optical, and Electroluminescent Properties of Alternating Copolymer Based on Phenothiazine and Fluorene with Oxadiazole Pendant. Molecular Crystals and Liquid Crystals, 2011, 550, 294-303.	0.9	9
103	Effect of hybrid carbon nanotubesâ€"bimetallic composite particles on the performance of polymer solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 750-754.	6.2	12
104	Low-bandgap poly(4H-cyclopenta[def]phenanthrene) derivatives with 4,7-dithienyl-2,1,3-benzothiadiazole unit for photovoltaic cells. Polymer, 2010, 51, 390-396.	3.8	35
105	Large-area organic solar cells with metal subelectrode on indium tin oxide anode. Applied Physics Letters, 2010, 96, .	3.3	36
106	Improvement of efficiency in Ï€-conjugated polymer based on phenothiazine by introduction of oxadiazole pendant as a side chain. Macromolecular Research, 2009, 17, 319-324.	2.4	9
107	Synthesis and Characterization of Novel Conjugated Polymer with 4H-Cyclopenta[def]phenanthrene and the Sulfanyl Group. Polymer Journal, 2009, 41, 138-145.	2.7	3
108	Reduction of Series Resistance in Organic Photovoltaic Using Low Sheet Resistance of ITO Electrode. Electrochemical and Solid-State Letters, 2009, 12, H64.	2.2	32

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109	Synthesis and electroluminescent properties of Ï€-conjugated copolymer based on 10-hexylphenothiazine and aromatic 1,2,4-triazole. Synthetic Metals, 2009, 159, 1922-1927.	3.9	13
110	Synthesis and characterization of thermally cross-linkable hole injection polymer based on poly(10-alkylphenothiazine) for polymer light-emitting diode. Synthetic Metals, 2009, 159, 1928-1933.	3.9	18
111	Influence of Solvent on Micellar Morphologies of Semifluorinated Block Copolymers. Journal of Nanoscience and Nanotechnology, 2009, 9, 7220-3.	0.9	0
112	Synthesis and electro-optical properties of poly(p-phenylenevinylene) derivative with conjugated 1,3,4-oxadiazole pendant and its AC electroluminescence. Synthetic Metals, 2008, 158, 1028-1036.	3.9	2
113	New host materials with high triplet energy level for blue-emitting electrophosphorescent device. Synthetic Metals, 2007, 157, 743-750.	3.9	36
114	Synthesis and characterization of efficient orange-red emitting poly(p-phenylenevinylene) derivatives with 1,3,4-oxadiazole unit. Synthetic Metals, 2007, 157, 1040-1045.	3.9	4
115	Electroluminescent copolymers based on dihexylfluorene and 2-{2,6-bis[2-(4-diphenylaminophenyl)vinyl]pyran-4-ylidene}malononitrile units. Journal of Polymer Science Part A, 2006, 44, 3729-3737.	2.3	14
116	Conjugated polymer electrolyte with nitrosonium tetrafluoroborate as the interlayer for polymer solar cells. Molecular Crystals and Liquid Crystals, 0, , 1-7.	0.9	1
117	Fluorine-substituted indolo-thiadiazoloquinoxaline-based D-A type polymers for photovoltaic applications. Molecular Crystals and Liquid Crystals, 0, , 1-8.	0.9	0
118	Effect of electron-donating methoxy groups on photovoltaic properties of triphenylamine-substituted quinoxaline-based polymers. Molecular Crystals and Liquid Crystals, 0, , 1-7.	0.9	1
119	Effect of fluorine substituents on photovoltaic properties of Dâ€“a type conjugated polymers with quinoxaline unit. Molecular Crystals and Liquid Crystals, 0, , 1-9.	0.9	2