In Hwan Jung

List of Publications by Year
in descending order

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87 papers	3,331 citations	136950 32 h-index	155660 55 g-index
89 all docs	89 docs citations	89 times ranked	4766 citing authors

#	Article	IF	Citations
1	Contribution of dark current density to the photodetecting properties of thieno[3,4-b]pyrazine-based low bandgap polymers. Dyes and Pigments, 2022, 197, 109910.	3.7	12
2	Spontaneously Induced Hierarchical Structure by Surface Energy in Novel Conjugated Polymerâ€Based Ultrafastâ€Response Organic Photodetectors. Advanced Optical Materials, 2022, 10, .	7.3	7
3	Simple-Structured Low-Cost Dopant-Free Hole-Transporting Polymers for High-Stability CsPbI₂Br Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 13400-13409.	8.0	5
4	Rational Design of Highly Soluble and Crystalline Conjugated Polymers for Highâ€Performance Fieldâ€Effect Transistors. Advanced Electronic Materials, 2022, 8, .	5.1	10
5	Environmentally friendly AgBiS2 nanocrystal-based high-performance quantum-dot photodetectors. Applied Surface Science, 2022, 597, 153661.	6.1	9
6	Ambidextrous Polymeric Binder for Silicon Anodes in Lithium-Ion Batteries. Chemistry of Materials, 2022, 34, 5791-5798.	6.7	13
7	Development of low bandgap polymers for red and near-infrared fullerene-free organic photodetectors. New Journal of Chemistry, 2021, 45, 10872-10879.	2.8	6
8	Enhanced Static and Dynamic Properties of Highly Miscible Fullerene-Free Green-Selective Organic Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 25164-25174.	8.0	16
9	Wavelength-selective porphyrin photodiodes via control of Soret- and Q-band absorption. Dyes and Pigments, 2021, 193, 109531.	3.7	7
10	Solutionâ€state dopingâ€assisted molecular ordering and enhanced thermoelectric properties of an amorphous polymer. International Journal of Energy Research, 2021, 45, 21540-21551.	4.5	6
11	A conjugated polyelectrolyte interfacial modifier for high performance near-infrared quantum-dot photodetectors. Journal of Materials Chemistry C, 2020, 8, 2542-2550.	5.5	7
12	Highâ€Detectivity Greenâ€Selective Allâ€Polymer pâ€“n Junction Photodetectors. Advanced Optical Materials, 2020, 8, 2001038.	7.3	23
13	PbS-Based Quantum Dot Solar Cells with Engineered Ï€-Conjugated Polymers Achieve 13% Efficiency. ACS Energy Letters, 2020, 5, 3452-3460.	17.4	32
14	Improved size distribution of <scp> AgBiS ₂ </scp> colloidal nanocrystals by optimized synthetic route enhances photovoltaic performance. International Journal of Energy Research, 2020, 44, 11006-11014.	4.5	21
15	Acceptorâ€“acceptor-type conjugated polymer for use in n-type organic thin-film transistors and thermoelectric devices. Organic Electronics, 2020, 86, 105921.	2.6	12
16	Enhancement of Photovoltaic Performance in Immiscible Ternary Blends. ACS Applied Energy Materials, 2020, 3, 5313-5321.	5.1	6
17	Thiophene backbone-based polymers with electron-withdrawing pendant groups for application in organic thin-film transistors. New Journal of Chemistry, 2020, 44, 9321-9327.	2.8	9
18	High-Performance Nonfullerene Organic Photovoltaic Cells Using a TPD-Based Wide Bandgap Donor Polymer. ACS Applied Energy Materials, 2019, 2, 5692-5697.	5.1	19

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19	Enhanced Thermoelectric Performance of Conjugated Polymer/CNT Nanocomposites by Modulating the Potential Barrier Difference between Conjugated Polymer and CNT. ACS Applied Electronic Materials, 2019, 1, 1282-1289.	4.3	26
20	Alkylthiazole-based semicrystalline polymer donors for fullerene-free organic solar cells. Polymer Chemistry, 2019, 10, 4314-4321.	3.9	14
21	Performance Optimization of Parallelâ€Like Ternary Organic Solar Cells through Simultaneous Improvement in Charge Generation and Transport. Advanced Functional Materials, 2019, 29, 1808731.	14.9	37
22	Vacuum-Deposited Organic Solar Cells Based on a Dicyanovinyl-Terminated Small-Molecule Donor. Macromolecular Research, 2019, 27, 444-447.	2.4	7
23	Simple Bithiopheneâ€“Rhodanineâ€Based Small Molecule Acceptor for Use in Additiveâ€Free Nonfullerene OPVs with Low Energy Loss of 0.51 eV. Advanced Energy Materials, 2019, 9, 1804021.	19.5	58
24	Ternary Organic Solar Cells: Performance Optimization of Parallelâ€Like Ternary Organic Solar Cells through Simultaneous Improvement in Charge Generation and Transport (Adv. Funct. Mater. 14/2019). Advanced Functional Materials, 2019, 29, 1970093.	14.9	0
25	Improved Performance of Quantumâ€Dot Photodetectors Using Cheap and Environmentally Friendly Polyethylene Glycol. Advanced Materials Interfaces, 2019, 6, 1801666.	3.7	9
26	Near-Infrared Harvesting Fullerene-Free All-Small-Molecule Organic Solar Cells Based on Porphyrin Donors. ACS Sustainable Chemistry and Engineering, 2018, 6, 5306-5313.	6.7	34
27	n-Type core effect on perylene diimide based acceptors for panchromatic fullerene-free organic solar cells. Dyes and Pigments, 2018, 156, 318-325.	3.7	12
28	Green phosphorescent homoleptic iridium(III) complexes for highly efficient organic light-emitting diodes. Dyes and Pigments, 2018, 156, 395-402.	3.7	15
29	Perovskite Solar Cells: Highâ€Efficiency Lowâ€Temperature ZnO Based Perovskite Solar Cells Based on Highly Polar, Nonwetting Selfâ€Assembled Molecular Layers (Adv. Energy Mater. 5/2018). Advanced Energy Materials, 2018, 8, 1870022.	19.5	11
30	Polystyrene-block-Poly(ionic liquid) Copolymers as Work Function Modifiers in Inverted Organic Photovoltaic Cells. ACS Applied Materials & Interfaces, 2018, 10, 4887-4894.	8.0	21
31	Simultaneous Improvement in Efficiency and Stability of Lowâ€Temperatureâ€Processed Perovskite Solar Cells by Interfacial Control. Advanced Energy Materials, 2018, 8, 1702934.	19.5	84
32	Highâ€Efficiency Lowâ€Temperature ZnO Based Perovskite Solar Cells Based on Highly Polar, Nonwetting Selfâ€Assembled Molecular Layers. Advanced Energy Materials, 2018, 8, 1701683.	19.5	144
33	High-performance dopant-free conjugated small molecule-based hole-transport materials for perovskite solar cells. Nano Energy, 2018, 44, 191-198.	16.0	124
34	High-Performance Near-Infrared Absorbing n-Type Porphyrin Acceptor for Organic Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 41344-41349.	8.0	37
35	Development of n-Type Porphyrin Acceptors for Panchromatic Light-Harvesting Fullerene-Free Organic Solar Cells. Frontiers in Chemistry, 2018, 6, 473.	3.6	5
36	Visible-Light-Responsive High-Detectivity Organic Photodetectors with a 1 Î¼m Thick Active Layer. ACS Applied Materials & Interfaces, 2018, 10, 38294-38301.	8.0	35

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37	Performance Improvement in Low-Temperature-Processed Perovskite Solar Cells by Molecular Engineering of Porphyrin-Based Hole Transport Materials. ACS Applied Materials & Interfaces, 2018, 10, 35404-35410.	8.0	32
38	High Thermoelectric Power Factor of a Diketopyrrolopyrrole-Based Low Bandgap Polymer via Finely Tuned Doping Engineering. Scientific Reports, 2017, 7, 44704.	3.3	90
39	Synthesis and characterization of a wide bandgap polymer based on a weak donor-weak acceptor structure for dual applications in organic solar cells and organic photodetectors. Organic Electronics, 2017, 46, 173-182.	2.6	18
40	Artificial light-harvesting n-type porphyrin for panchromatic organic photovoltaic devices. Chemical Science, 2017, 8, 5095-5100.	7.4	50
41	Dark current reduction strategies using edge-on aligned donor polymers for high detectivity and responsivity organic photodetectors. Polymer Chemistry, 2017, 8, 3612-3621.	3.9	35
42	Diphenylâ€2â€pyridylamineâ€Substituted Porphyrins as Holeâ€Transporting Materials for Perovskite Solar Cells. ChemSusChem, 2017, 10, 3780-3787.	6.8	40
43	Fullerene-Free Organic Solar Cells with an Efficiency of 10.2% and an Energy Loss of 0.59 eV Based on a Thieno[3,4-c]Pyrrole-4,6-dione-Containing Wide Band Gap Polymer Donor. ACS Applied Materials & Interfaces, 2017, 9, 32939-32945.	8.0	48
44	Improved performance of colloidal quantum dot solar cells using high-electric-dipole self-assembled layers. Nano Energy, 2017, 39, 355-362.	16.0	34
45	Fluorene-Based Conjugated Polyelectrolytes as Interlayers for Organic Photovoltaic Cells. Journal of Nanoscience and Nanotechnology, 2017, 17, 5601-5605.	0.9	2
46	Geometrically controlled organic small molecule acceptors for efficient fullerene-free organic photovoltaic devices. Journal of Materials Chemistry A, 2016, 4, 12308-12318.	10.3	58
47	Synthesis and characterization of a new phenanthrenequinoxalineâ€based polymer for organic solar cells. Journal of Polymer Science Part A, 2016, 54, 2804-2810.	2.3	7
48	Modulation of Charge Density of Cationic Conjugated Polyelectrolytes for Improving the FRETâ€Induced Sensory Signal with Enhanced On/Off Ratio. Macromolecular Chemistry and Physics, 2016, 217, 459-466.	2.2	2
49	Highly efficient and thermally stable fullerene-free organic solar cells based on a small molecule donor and acceptor. Journal of Materials Chemistry A, 2016, 4, 16335-16340.	10.3	88
50	Optimization and Analysis of Conjugated Polymer Side Chains for Highâ€Performance Organic Photovoltaic Cells. Advanced Functional Materials, 2016, 26, 1517-1525.	14.9	67
51	Enhanced and controllable open-circuit voltage using 2D-conjugated benzodithiophene (BDT) homopolymers by alkylthio substitution. Journal of Materials Chemistry C, 2016, 4, 2170-2177.	5.5	18
52	Naphthalene-diimide-incorporated conjugated polyelectrolyte interfacial modifier for the efficient inverted-type polymer solar cells. Journal of Information Display, 2016, 17, 17-24.	4.0	3
53	A di(1-benzothieno)[3,2-b:2â€²,3â€²-d]pyrrole and isoindigo-based electron donating conjugated polymer for efficient organic photovoltaics. Journal of Materials Chemistry C, 2016, 4, 663-667.	5.5	18
54	Development of a julolidine-based interfacial modifier for efficient inverted polymer solar cells. RSC Advances, 2015, 5, 107540-107546.	3.6	13

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55	Edge-on Gating Effect in Molecular Wires. Nano Letters, 2015, 15, 958-962.	9.1	43
56	Development of New Photovoltaic Conjugated Polymers Based on Di(1-benzothieno)[3,2-b:2â€²,3â€²-d]pyrrole: Benzene Ring Extension Strategy for Improving Open-Circuit Voltage. Macromolecules, 2015, 48, 5213-5221.	4.8	32
57	Well-controlled thieno[3,4-c]pyrrole-4,6-(5H)-dione based conjugated polymers for high performance organic photovoltaic cells with the power conversion efficiency exceeding 9%. Energy and Environmental Science, 2015, 8, 2352-2356.	30.8	109
58	New alkylthio-thieno[3,2-b]thiophene-substituted benzodithiophene-based highly efficient photovoltaic polymer. Journal of Materials Chemistry C, 2015, 3, 4250-4253.	5.5	19
59	Effect of Acceptor Strength on Optical and Electronic Properties in Conjugated Polymers for Solar Applications. Journal of the American Chemical Society, 2015, 137, 5759-5769.	13.7	35
60	Controlling the Morphology of BDTT-DPP-Based Small Molecules via End-Group Functionalization for Highly Efficient Single and Tandem Organic Photovoltaic Cells. ACS Applied Materials & Interfaces, 2015, 7, 23866-23875.	8.0	33
61	Development and Structure/Property Relationship of New Electron Accepting Polymers Based on Thieno[2â€²,3â€²:4,5]pyrido[2,3-g]thieno[3,2-c]quinoline-4,10-dione for All-Polymer Solar Cells. Chemistry of Materials, 2015, 27, 5941-5948.	6.7	60
62	Conjugated Polyelectrolyte and Aptamer Based Potassium Assay via Singleâ€•and Twoâ€Step Fluorescence Energy Transfer with a Tunable Dynamic Detection Range. Advanced Functional Materials, 2014, 24, 1748-1757.	14.9	31
63	Match the Interfacial Energy Levels between Hole Transport Layer and Donor Polymer To Achieve High Solar Cell Performance. Journal of Physical Chemistry C, 2014, 118, 22834-22839.	3.1	26
64	Synthesis of triarylamine-based alternating copolymers for polymeric solar cell. Polymer, 2014, 55, 4837-4845.	3.8	4
65	Synthesis and Search for Design Principles of New Electron Accepting Polymers for All-Polymer Solar Cells. Chemistry of Materials, 2014, 26, 3450-3459.	6.7	100
66	Multiâ€Charged Conjugated Polyelectrolytes as a Versatile Work Function Modifier for Organic Electronic Devices. Advanced Functional Materials, 2014, 24, 1100-1108.	14.9	170
67	Synthesis and Characterization of an Anthracene-Based Low Band Gap Polymer for Photovoltaic Devices. Journal of Nanoscience and Nanotechnology, 2014, 14, 6422-6426.	0.9	2
68	The Role of N-Doped Multiwall Carbon Nanotubes in Achieving Highly Efficient Polymer Bulk Heterojunction Solar Cells. Nano Letters, 2013, 13, 2365-2369.	9.1	191
69	Cationic Conjugated Polyelectrolytes-Triggered Conformational Change of Molecular Beacon Aptamer for Highly Sensitive and Selective Potassium Ion Detection. Journal of the American Chemical Society, 2012, 134, 3133-3138.	13.7	162
70	Incremental optimization in donor polymers for bulk heterojunction organic solar cells exhibiting high performance. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 1057-1070.	2.1	29
71	Overcoming efficiency challenges in organic solar cells: rational development of conjugated polymers. Energy and Environmental Science, 2012, 5, 8158.	30.8	189
72	2,5-di(thiophen-2-yl)thiazolo[5,4-d]thiazole-based donorâ€“acceptor type copolymers for photovoltaic cells. Current Applied Physics, 2012, 12, 11-16.	2.4	12

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73	Synthesis and characterization of fluorene and cyclopentadithiopheneâ€based copolymers exhibiting broad absorption for photovoltaic devices. Journal of Polymer Science Part A, 2011, 49, 1248-1255.	2.3	9
74	The influence of electron deficient unit and interdigitated packing shape of new polythiophene derivatives on organic thinâ€film transistors and photovoltaic cells. Journal of Polymer Science Part A, 2011, 49, 2886-2898.	2.3	22
75	Synthesis and Photovoltaic Properties of Cyclopentadithiopheneâ€Based Lowâ€Bandgap Copolymers That Contain Electronâ€Withdrawing Thiazole Derivatives. Chemistry - A European Journal, 2010, 16, 3743-3752.	3.3	112
76	Organic thin-film transistor properties and the structural relationships between various aromatic end-capped triisopropylsilylethynyl anthracene derivatives. Organic Electronics, 2010, 11, 820-830.	2.6	19
77	Synthesis, characterization, and electroluminescence of polyfluorene copolymers containing Tâ€shaped isophorone derivatives. Journal of Polymer Science Part A, 2010, 48, 82-90.	2.3	10
78	Synthesis and characterization of cyclopentadithiopheneâ€based low bandgap copolymers containing electronâ€deficient benzoselenadiazole derivatives for photovoltaic devices. Journal of Polymer Science Part A, 2010, 48, 1423-1432.	2.3	38
79	Single Chain White-Light-Emitting Polyfluorene Copolymers Containing Iridium Complex Coordinated on the Main Chain. Macromolecules, 2010, 43, 1379-1386.	4.8	62
80	Synthesis and characterization of indeno[1,2-b]fluorene-based low bandgap copolymers for photovoltaic cells. Journal of Materials Chemistry, 2010, 20, 1577.	6.7	45
81	New anthracene-thiophene-based copolymers that absorb across the entire UV-vis spectrum for application in organic solar cells. Chemical Communications, 2010, 46, 1863-1865.	4.1	29
82	Thermal annealing induced bicontinuous networks in bulk heterojunction solar cells and bipolar field-effect transistors. Applied Physics Letters, 2009, 95, 173301.	3.3	7
83	Synthesis and characterization of indeno[1,2â€b]fluoreneâ€based white lightâ€emitting copolymer. Journal of Polymer Science Part A, 2009, 47, 3467-3479.	2.3	34
84	Synthesis and Electroluminescence of New Polyfluorene Copolymers Containing Iridium Complex Coordinated on the Main Chain. Macromolecules, 2009, 42, 5551-5557.	4.8	28
85	New selenophene-based semiconducting copolymers for high performance organic thin-film transistors. Journal of Materials Chemistry, 2009, 19, 3490.	6.7	59
86	Synthesis and electroluminescent properties of fluoreneâ€based copolymers containing electronâ€withdrawing thiazole derivatives. Journal of Polymer Science Part A, 2008, 46, 7148-7161.	2.3	57
87	Synthesis, Characterization, and Electroluminescence of Polyfluorene Copolymers with Phenothiazine Derivative; Their Applications to High-Efficiency Red and White PLEDs. Macromolecules, 2008, 41, 9643-9649.	4.8	36