

In Hwan Jung

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6287479/publications.pdf>

Version: 2024-02-01

87
papers

3,331
citations

136885

32
h-index

155592

55
g-index

89
all docs

89
docs citations

89
times ranked

4766
citing authors

#	ARTICLE	IF	CITATIONS
1	The Role of N-Doped Multiwall Carbon Nanotubes in Achieving Highly Efficient Polymer Bulk Heterojunction Solar Cells. <i>Nano Letters</i> , 2013, 13, 2365-2369.	4.5	191
2	Overcoming efficiency challenges in organic solar cells: rational development of conjugated polymers. <i>Energy and Environmental Science</i> , 2012, 5, 8158.	15.6	189
3	Multi-Charged Conjugated Polyelectrolytes as a Versatile Work Function Modifier for Organic Electronic Devices. <i>Advanced Functional Materials</i> , 2014, 24, 1100-1108.	7.8	170
4	Cationic Conjugated Polyelectrolytes-Triggered Conformational Change of Molecular Beacon Aptamer for Highly Sensitive and Selective Potassium Ion Detection. <i>Journal of the American Chemical Society</i> , 2012, 134, 3133-3138.	6.6	162
5	High-Efficiency Low-Temperature ZnO Based Perovskite Solar Cells Based on Highly Polar, Nonwetting Self-Assembled Molecular Layers. <i>Advanced Energy Materials</i> , 2018, 8, 1701683.	10.2	144
6	High-performance dopant-free conjugated small molecule-based hole-transport materials for perovskite solar cells. <i>Nano Energy</i> , 2018, 44, 191-198.	8.2	124
7	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
8	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%. <i>Energy and Environmental Science</i> , 2015, 8, 2352-2356.	15.6	109
9	Synthesis and Search for Design Principles of New Electron Accepting Polymers for All-Polymer Solar Cells. <i>Chemistry of Materials</i> , 2014, 26, 3450-3459.	3.2	100
10	High Thermoelectric Power Factor of a Diketopyrrolopyrrole-Based Low Bandgap Polymer via Finely Tuned Doping Engineering. <i>Scientific Reports</i> , 2017, 7, 44704.	1.6	90
11	Highly efficient and thermally stable fullerene-free organic solar cells based on a small molecule donor and acceptor. <i>Journal of Materials Chemistry A</i> , 2016, 4, 16335-16340.	5.2	88
12	Simultaneous Improvement in Efficiency and Stability of Low-Temperature-Processed Perovskite Solar Cells by Interfacial Control. <i>Advanced Energy Materials</i> , 2018, 8, 1702934.	10.2	84
13	Optimization and Analysis of Conjugated Polymer Side Chains for High-Performance Organic Photovoltaic Cells. <i>Advanced Functional Materials</i> , 2016, 26, 1517-1525.	7.8	67
14	Single Chain White-Light-Emitting Polyfluorene Copolymers Containing Iridium Complex Coordinated on the Main Chain. <i>Macromolecules</i> , 2010, 43, 1379-1386.	2.2	62
15	Development and Structure/Property Relationship of New Electron Accepting Polymers Based on Thieno[2,3- <i>b</i>]pyrido[2,3- <i>g</i>]thieno[3,2- <i>c</i>]quinoline-4,10-dione for All-Polymer Solar Cells. <i>Chemistry of Materials</i> , 2015, 27, 5941-5948.	3.2	60
16	New selenophene-based semiconducting copolymers for high performance organic thin-film transistors. <i>Journal of Materials Chemistry</i> , 2009, 19, 3490.	6.7	59
17	Geometrically controlled organic small molecule acceptors for efficient fullerene-free organic photovoltaic devices. <i>Journal of Materials Chemistry A</i> , 2016, 4, 12308-12318.	5.2	58
18	Simple Bithiophene-Rhodanine-Based Small Molecule Acceptor for Use in Additive-Free Nonfullerene OPVs with Low Energy Loss of 0.51 eV. <i>Advanced Energy Materials</i> , 2019, 9, 1804021.	10.2	58

#	ARTICLE	IF	CITATIONS
19	Synthesis and electroluminescent properties of fluorene-based copolymers containing electron-withdrawing thiazole derivatives. <i>Journal of Polymer Science Part A</i> , 2008, 46, 7148-7161.	2.5	57
20	Artificial light-harvesting n-type porphyrin for panchromatic organic photovoltaic devices. <i>Chemical Science</i> , 2017, 8, 5095-5100.	3.7	50
21	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. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 32939-32945.	4.0	48
22	Synthesis and characterization of indeno[1,2-b]fluorene-based low bandgap copolymers for photovoltaic cells. <i>Journal of Materials Chemistry</i> , 2010, 20, 1577.	6.7	45
23	Edge-on Gating Effect in Molecular Wires. <i>Nano Letters</i> , 2015, 15, 958-962.	4.5	43
24	Diphenylacetyridylamine-Substituted Porphyrins as Hole-Transporting Materials for Perovskite Solar Cells. <i>ChemSusChem</i> , 2017, 10, 3780-3787.	3.6	40
25	Synthesis and characterization of cyclopentadithiophene-based low bandgap copolymers containing electron-deficient benzoselenadiazole derivatives for photovoltaic devices. <i>Journal of Polymer Science Part A</i> , 2010, 48, 1423-1432.	2.5	38
26	High-Performance Near-Infrared Absorbing n-Type Porphyrin Acceptor for Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 41344-41349.	4.0	37
27	Performance Optimization of Parallel-Like Ternary Organic Solar Cells through Simultaneous Improvement in Charge Generation and Transport. <i>Advanced Functional Materials</i> , 2019, 29, 1808731.	7.8	37
28	Synthesis, Characterization, and Electroluminescence of Polyfluorene Copolymers with Phenothiazine Derivative; Their Applications to High-Efficiency Red and White PLEDs. <i>Macromolecules</i> , 2008, 41, 9643-9649.	2.2	36
29	Effect of Acceptor Strength on Optical and Electronic Properties in Conjugated Polymers for Solar Applications. <i>Journal of the American Chemical Society</i> , 2015, 137, 5759-5769.	6.6	35
30	Dark current reduction strategies using edge-on aligned donor polymers for high detectivity and responsivity organic photodetectors. <i>Polymer Chemistry</i> , 2017, 8, 3612-3621.	1.9	35
31	Visible-Light-Responsive High-Detectivity Organic Photodetectors with a 1 μ m Thick Active Layer. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 38294-38301.	4.0	35
32	Synthesis and characterization of indeno[1,2-b]fluorene-based white light-emitting copolymer. <i>Journal of Polymer Science Part A</i> , 2009, 47, 3467-3479.	2.5	34
33	Improved performance of colloidal quantum dot solar cells using high-electric-dipole self-assembled layers. <i>Nano Energy</i> , 2017, 39, 355-362.	8.2	34
34	Near-Infrared Harvesting Fullerene-Free All-Small-Molecule Organic Solar Cells Based on Porphyrin Donors. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 5306-5313.	3.2	34
35	Controlling the Morphology of BDTT-DPP-Based Small Molecules via End-Group Functionalization for Highly Efficient Single and Tandem Organic Photovoltaic Cells. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 23866-23875.	4.0	33
36	Development of New Photovoltaic Conjugated Polymers Based on Di(1-benzothieno)[3,2-b]pyrrole: Benzene Ring Extension Strategy for Improving Open-Circuit Voltage. <i>Macromolecules</i> , 2015, 48, 5213-5221.	2.2	32

#	ARTICLE	IF	CITATIONS
37	Performance Improvement in Low-Temperature-Processed Perovskite Solar Cells by Molecular Engineering of Porphyrin-Based Hole Transport Materials. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 35404-35410.	4.0	32
38	PbS-Based Quantum Dot Solar Cells with Engineered π -Conjugated Polymers Achieve 13% Efficiency. <i>ACS Energy Letters</i> , 2020, 5, 3452-3460.	8.8	32
39	Conjugated Polyelectrolyte and Aptamer Based Potassium Assay via Single- and Two-Step Fluorescence Energy Transfer with a Tunable Dynamic Detection Range. <i>Advanced Functional Materials</i> , 2014, 24, 1748-1757.	7.8	31
40	New anthracene-thiophene-based copolymers that absorb across the entire UV-vis spectrum for application in organic solar cells. <i>Chemical Communications</i> , 2010, 46, 1863-1865.	2.2	29
41	Incremental optimization in donor polymers for bulk heterojunction organic solar cells exhibiting high performance. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 1057-1070.	2.4	29
42	Synthesis and Electroluminescence of New Polyfluorene Copolymers Containing Iridium Complex Coordinated on the Main Chain. <i>Macromolecules</i> , 2009, 42, 5551-5557.	2.2	28
43	Match the Interfacial Energy Levels between Hole Transport Layer and Donor Polymer To Achieve High Solar Cell Performance. <i>Journal of Physical Chemistry C</i> , 2014, 118, 22834-22839.	1.5	26
44	Enhanced Thermoelectric Performance of Conjugated Polymer/CNT Nanocomposites by Modulating the Potential Barrier Difference between Conjugated Polymer and CNT. <i>ACS Applied Electronic Materials</i> , 2019, 1, 1282-1289.	2.0	26
45	High-Detectivity Green-Selective All-Polymer p-n Junction Photodetectors. <i>Advanced Optical Materials</i> , 2020, 8, 2001038.	3.6	23
46	The influence of electron deficient unit and interdigitated packing shape of new polythiophene derivatives on organic thin-film transistors and photovoltaic cells. <i>Journal of Polymer Science Part A</i> , 2011, 49, 2886-2898.	2.5	22
47	Polystyrene- <i>block</i> -Poly(ionic liquid) Copolymers as Work Function Modifiers in Inverted Organic Photovoltaic Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 4887-4894.	4.0	21
48	Improved size distribution of AgBiS_2 colloidal nanocrystals by optimized synthetic route enhances photovoltaic performance. <i>International Journal of Energy Research</i> , 2020, 44, 11006-11014.	2.2	21
49	Organic thin-film transistor properties and the structural relationships between various aromatic end-capped triisopropylsilylethynyl anthracene derivatives. <i>Organic Electronics</i> , 2010, 11, 820-830.	1.4	19
50	New alkylthio-thieno[3,2-b]thiophene-substituted benzodithiophene-based highly efficient photovoltaic polymer. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4250-4253.	2.7	19
51	High-Performance Nonfullerene Organic Photovoltaic Cells Using a TPD-Based Wide Bandgap Donor Polymer. <i>ACS Applied Energy Materials</i> , 2019, 2, 5692-5697.	2.5	19
52	Enhanced and controllable open-circuit voltage using 2D-conjugated benzodithiophene (BDT) homopolymers by alkylthio substitution. <i>Journal of Materials Chemistry C</i> , 2016, 4, 2170-2177.	2.7	18
53	A di(1-benzothieno)[3,2-b:2',3'-d]pyrrole and isoindigo-based electron donating conjugated polymer for efficient organic photovoltaics. <i>Journal of Materials Chemistry C</i> , 2016, 4, 663-667.	2.7	18
54	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. <i>Organic Electronics</i> , 2017, 46, 173-182.	1.4	18

#	ARTICLE	IF	CITATIONS
55	Enhanced Static and Dynamic Properties of Highly Miscible Fullerene-Free Green-Selective Organic Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 25164-25174.	4.0	16
56	Green phosphorescent homoleptic iridium(III) complexes for highly efficient organic light-emitting diodes. <i>Dyes and Pigments</i> , 2018, 156, 395-402.	2.0	15
57	Alkylthiazole-based semicrystalline polymer donors for fullerene-free organic solar cells. <i>Polymer Chemistry</i> , 2019, 10, 4314-4321.	1.9	14
58	Development of a julolidine-based interfacial modifier for efficient inverted polymer solar cells. <i>RSC Advances</i> , 2015, 5, 107540-107546.	1.7	13
59	Ambidextrous Polymeric Binder for Silicon Anodes in Lithium-Ion Batteries. <i>Chemistry of Materials</i> , 2022, 34, 5791-5798.	3.2	13
60	2,5-di(thiophen-2-yl)thiazolo[5,4-d]thiazole-based donor-acceptor type copolymers for photovoltaic cells. <i>Current Applied Physics</i> , 2012, 12, 11-16.	1.1	12
61	n-Type core effect on perylene diimide based acceptors for panchromatic fullerene-free organic solar cells. <i>Dyes and Pigments</i> , 2018, 156, 318-325.	2.0	12
62	Acceptor-acceptor-type conjugated polymer for use in n-type organic thin-film transistors and thermoelectric devices. <i>Organic Electronics</i> , 2020, 86, 105921.	1.4	12
63	Contribution of dark current density to the photodetecting properties of thieno[3,4-b]pyrazine-based low bandgap polymers. <i>Dyes and Pigments</i> , 2022, 197, 109910.	2.0	12
64	Perovskite Solar Cells: High-Efficiency Low-Temperature ZnO Based Perovskite Solar Cells Based on Highly Polar, Nonwetting Self-Assembled Molecular Layers (<i>Adv. Energy Mater.</i> 5/2018). <i>Advanced Energy Materials</i> , 2018, 8, 1870022.	10.2	11
65	Synthesis, characterization, and electroluminescence of polyfluorene copolymers containing T-shaped isophorone derivatives. <i>Journal of Polymer Science Part A</i> , 2010, 48, 82-90.	2.5	10
66	Rational Design of Highly Soluble and Crystalline Conjugated Polymers for High-Performance Field-Effect Transistors. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	10
67	Synthesis and characterization of fluorene and cyclopentadithiophene-based copolymers exhibiting broad absorption for photovoltaic devices. <i>Journal of Polymer Science Part A</i> , 2011, 49, 1248-1255.	2.5	9
68	Improved Performance of Quantum-Dot Photodetectors Using Cheap and Environmentally Friendly Polyethylene Glycol. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801666.	1.9	9
69	Thiophene backbone-based polymers with electron-withdrawing pendant groups for application in organic thin-film transistors. <i>New Journal of Chemistry</i> , 2020, 44, 9321-9327.	1.4	9
70	Environmentally friendly AgBiS ₂ nanocrystal-based high-performance quantum-dot photodetectors. <i>Applied Surface Science</i> , 2022, 597, 153661.	3.1	9
71	Thermal annealing induced bicontinuous networks in bulk heterojunction solar cells and bipolar field-effect transistors. <i>Applied Physics Letters</i> , 2009, 95, 173301.	1.5	7
72	Synthesis and characterization of a new phenanthrenequinoxaline-based polymer for organic solar cells. <i>Journal of Polymer Science Part A</i> , 2016, 54, 2804-2810.	2.5	7

#	ARTICLE	IF	CITATIONS
73	Vacuum-Deposited Organic Solar Cells Based on a Dicyanovinyl-Terminated Small-Molecule Donor. <i>Macromolecular Research</i> , 2019, 27, 444-447.	1.0	7
74	A conjugated polyelectrolyte interfacial modifier for high performance near-infrared quantum-dot photodetectors. <i>Journal of Materials Chemistry C</i> , 2020, 8, 2542-2550.	2.7	7
75	Wavelength-selective porphyrin photodiodes via control of Soret- and Q-band absorption. <i>Dyes and Pigments</i> , 2021, 193, 109531.	2.0	7
76	Spontaneously Induced Hierarchical Structure by Surface Energy in Novel Conjugated Polymer-Based Ultrafast-Response Organic Photodetectors. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	7
77	Enhancement of Photovoltaic Performance in Immiscible Ternary Blends. <i>ACS Applied Energy Materials</i> , 2020, 3, 5313-5321.	2.5	6
78	Development of low bandgap polymers for red and near-infrared fullerene-free organic photodetectors. <i>New Journal of Chemistry</i> , 2021, 45, 10872-10879.	1.4	6
79	Solution-state doping-assisted molecular ordering and enhanced thermoelectric properties of an amorphous polymer. <i>International Journal of Energy Research</i> , 2021, 45, 21540-21551.	2.2	6
80	Development of n-Type Porphyrin Acceptors for Panchromatic Light-Harvesting Fullerene-Free Organic Solar Cells. <i>Frontiers in Chemistry</i> , 2018, 6, 473.	1.8	5
81	Simple-Structured Low-Cost Dopant-Free Hole-Transporting Polymers for High-Stability CsPbI ₂ Br Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 13400-13409.	4.0	5
82	Synthesis of triarylamine-based alternating copolymers for polymeric solar cell. <i>Polymer</i> , 2014, 55, 4837-4845.	1.8	4
83	Naphthalene-diimide-incorporated conjugated polyelectrolyte interfacial modifier for the efficient inverted-type polymer solar cells. <i>Journal of Information Display</i> , 2016, 17, 17-24.	2.1	3
84	Synthesis and Characterization of an Anthracene-Based Low Band Gap Polymer for Photovoltaic Devices. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 6422-6426.	0.9	2
85	Modulation of Charge Density of Cationic Conjugated Polyelectrolytes for Improving the FRET-Induced Sensory Signal with Enhanced On/Off Ratio. <i>Macromolecular Chemistry and Physics</i> , 2016, 217, 459-466.	1.1	2
86	Fluorene-Based Conjugated Polyelectrolytes as Interlayers for Organic Photovoltaic Cells. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 5601-5605.	0.9	2
87	Ternary Organic Solar Cells: Performance Optimization of Parallel-Like Ternary Organic Solar Cells through Simultaneous Improvement in Charge Generation and Transport (<i>Adv. Funct. Mater.</i> 14/2019). <i>Advanced Functional Materials</i> , 2019, 29, 1970093.	7.8	0