Hyunbum Kang

List of Publications by Year
in descending order

30 papers	3,354 citations	331259 21 h-index	500791 28 g-index
30 all docs	30 docs citations	30 times ranked	3537 citing authors

#	Article	IF	Citations
1	Flexible, highly efficient all-polymer solar cells. Nature Communications, 2015, 6, 8547.	5.8	740
2	From Fullereneâ€“Polymer to All-Polymer Solar Cells: The Importance of Molecular Packing, Orientation, and Morphology Control. Accounts of Chemical Research, 2016, 49, 2424-2434.	7.6	407
3	Determining the Role of Polymer Molecular Weight for High-Performance All-Polymer Solar Cells: Its Effect on Polymer Aggregation and Phase Separation. Journal of the American Chemical Society, 2015, 137, 2359-2365.	6.6	347
4	Highâ€Performance Allâ€Polymer Solar Cells Via Sideâ€Chain Engineering of the Polymer Acceptor: The Importance of the Polymer Packing Structure and the Nanoscale Blend Morphology. Advanced Materials, 2015, 27, 2466-2471.	11.1	279
5	Effects of Solubilizing Group Modification in Fullerene Bis-Adducts on Normal and Inverted Type Polymer Solar Cells. Chemistry of Materials, 2012, 24, 2373-2381.	3.2	166
6	Eco-Friendly Polymer Solar Cells: Advances in Green-Solvent Processing and Material Design. ACS Nano, 2020, 14, 14493-14527.	7.3	150
7	Standalone real-time health monitoring patch based on a stretchable organic optoelectronic system. Science Advances, 2021, 7, .	4.7	144
8	Importance of Electron Transport Ability in Naphthalene Diimide-Based Polymer Acceptors for High-Performance, Additive-Free, All-Polymer Solar Cells. Chemistry of Materials, 2015, 27, 5230-5237.	3.2	131
9	Determining Optimal Crystallinity of Diketopyrrolopyrrole-Based Terpolymers for Highly Efficient Polymer Solar Cells and Transistors. Chemistry of Materials, 2014, 26, 6963-6970.	3.2	130
10	High-Performance All-Polymer Solar Cells Based on Face-On Stacked Polymer Blends with Low Interfacial Tension. ACS Macro Letters, 2014, 3, 1009-1014.	2.3	106
11	Facile Synthesis ofo-Xylenyl Fullerene Multiadducts for High Open Circuit Voltage and Efficient Polymer Solar Cells. Chemistry of Materials, 2011, 23, 5090-5095.	3.2	104
12	Controlling Number of Indene Solubilizing Groups in Multiadduct Fullerenes for Tuning Optoelectronic Properties and Open-Circuit Voltage in Organic Solar Cells. ACS Applied Materials & Interfaces, 2012, 4, 110-116.	4.0	89
13	Influence of intermolecular interactions of electron donating small molecules on their molecular packing and performance in organic electronic devices. Journal of Materials Chemistry A, 2013, 1, 14538.	5.2	86
14	Effect of Fullerene Tris-adducts on the Photovoltaic Performance of P3HT:Fullerene Ternary Blends. ACS Applied Materials & Interfaces, 2013, 5, 4401-4408.	4.0	69
15	Facile Photoâ€Crosslinking of Azideâ€Containing Holeâ€Transporting Polymers for Highly Efficient, Solutionâ€Processed, Multilayer Organic Light Emitting Devices. Advanced Functional Materials, 2014, 24, 7588-7596.	7.8	68
16	The effect of side-chain length on regioregular poly[3-(4-n-alkyl)phenylthiophene]/PCBM and ICBA polymer solar cells. Journal of Materials Chemistry, 2012, 22, 14236.	6.7	50
17	Side Chain Engineered Naphthalene Diimide-Based Terpolymer for Efficient and Mechanically Robust All-Polymer Solar Cells. Chemistry of Materials, 2021, 33, 1070-1081.	3.2	46
18	Improved Internal Quantum Efficiency and Light-Extraction Efficiency of Organic Light-Emitting Diodes via Synergistic Doping with Au and Ag Nanoparticles. ACS Applied Materials & Interfaces, 2016, 8, 27911-27919.	4.0	34

#	Article	IF	Citations
19	Green solvent-processed, high-performance organic solar cells achieved by outer side-chain selection of selenophene-incorporated Y-series acceptors. Journal of Materials Chemistry A, 2021, 9, 24622-24630.	5.2	34
20	Nanoimprinting-Induced Nanomorphological Transition in Polymer Solar Cells: Enhanced Electrical and Optical Performance. ACS Nano, 2015, 9, 2773-2782.	7.3	31
21	Stretchable PPG sensor with light polarization for physical activityâ€“permissible monitoring. Science Advances, 2022, 8, eabm3622.	4.7	31
22	Ester-functionalized, wide-bandgap derivatives of PM7 for simultaneous enhancement of photovoltaic performance and mechanical robustness of all-polymer solar cells. Journal of Materials Chemistry A, 2021, 9, 2775-2783.	5.2	23
23	Cyanoâ€Functionalized Quinoxalineâ€Based Polymer Acceptors for Allâ€Polymer Solar Cells and Organic Transistors. ChemSusChem, 2021, 14, 3520-3527.	3.6	20
24	Simultaneously Enhancing Light Extraction and Device Stability of Organic Lightâ€Emitting Diodes using a Corrugated Polymer Nanosphere Templated PEDOT:PSS Layer. Advanced Energy Materials, 2014, 4, 1301345.	10.2	19
25	Molecular structure-device performance relationship in polymer solar cells based on indene-C60 bis-adduct derivatives. Korean Journal of Chemical Engineering, 2015, 32, 261-267.	1.2	16
26	Layer-by-Layer Assembled Multilayer TiO_x for Efficient Electron Acceptor in Polymer Hybrid Solar Cells. Langmuir, 2010, 26, 17589-17595.	1.6	12
27	C₇₀-based aqueous-soluble fullerene for the water composition-tolerant performance of eco-friendly polymer solar cells. Journal of Materials Chemistry C, 2020, 8, 15224-15233.	2.7	11
28	Effects of the Selective Alkoxy Side Chain Position in Quinoxaline-Based Polymer Acceptors on the Performance of All-Polymer Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 47817-47825.	4.0	11
29	Organic Electronics: Facile Photoâ€Crosslinking of Azideâ€Containing Holeâ€Transporting Polymers for Highly Efficient, Solutionâ€Processed, Multilayer Organic Light Emitting Devices (Adv. Funct. Mater.) Tj ETQq1 1 0.784314 rgBT /Over	7.8	0
30	Lightâ€Emitting Diodes: Simultaneously Enhancing Light Extraction and Device Stability of Organic Lightâ€Emitting Diodes using a Corrugated Polymer Nanosphere Templated PEDOT:PSS Layer (Adv. Energy) Tj ETQq1 1 0.784314 rgBT /Overlock	10.2	0