Taehyo Kim

List of Publications by Year
in descending order

47 papers	2,842 citations	257450 24 h-index	223800 46 g-index
47 all docs	47 docs citations	47 times ranked	4543 citing authors

#	Article	IF	Citations
1	High-Performance Solution-Processed Non-Fullerene Organic Solar Cells Based on Selenophene-Containing Perylene Bisimide Acceptor. Journal of the American Chemical Society, 2016, 138, 375-380.	13.7	643
2	Versatile surface plasmon resonance of carbon-dot-supported silver nanoparticles in polymer optoelectronic devices. Nature Photonics, 2013, 7, 732-738.	31.4	501
3	Smallâ€Bandgap Polymer Solar Cells with Unprecedented Shortâ€Circuit Current Density and High Fill Factor. Advanced Materials, 2015, 27, 3318-3324.	21.0	294
4	Capillary Printing of Highly Aligned Silver Nanowire Transparent Electrodes for High-Performance Optoelectronic Devices. Nano Letters, 2015, 15, 7933-7942.	9.1	196
5	Interplay of Intramolecular Noncovalent Coulomb Interactions for Semicrystalline Photovoltaic Polymers. Chemistry of Materials, 2015, 27, 5997-6007.	6.7	150
6	Ternary Organic Solar Cells Based on Two Highly Efficient Polymer Donors with Enhanced Power Conversion Efficiency. Advanced Energy Materials, 2016, 6, 1502109.	19.5	147
7	Investigation of Charge Carrier Behavior in High Performance Ternary Blend Polymer Solar Cells. Advanced Energy Materials, 2016, 6, 1600637.	19.5	85
8	Highly efficient plasmonic organic optoelectronic devices based on a conducting polymer electrode incorporated with silver nanoparticles. Energy and Environmental Science, 2013, 6, 1949.	30.8	69
9	Nanoparticleâ€Enhanced Silverâ€Nanowire Plasmonic Electrodes for Highâ€Performance Organic Optoelectronic Devices. Advanced Materials, 2018, 30, e1800659.	21.0	67
10	Slotâ€Die and Rollâ€toâ€Roll Processed Single Junction Organic Photovoltaic Cells with the Highest Efficiency. Advanced Energy Materials, 2019, 9, 1901805.	19.5	62
11	Quinoxalineâ€"thiophene based thick photovoltaic devices with an efficiency of âˆ¼8%. Journal of Materials Chemistry A, 2016, 4, 9967-9976.	10.3	49
12	Photocurrent Extraction Efficiency near Unity in a Thick Polymer Bulk Heterojunction. Advanced Functional Materials, 2016, 26, 3324-3330.	14.9	48
13	Spectroscopically tracking charge separation in polymerâ€‰:â€‰fullerene blends with a three-phase morphology. Energy and Environmental Science, 2015, 8, 2713-2724.	30.8	44
14	Synthesis of fluorinated analogues of a practical polymer TQ for improved open-circuit voltages in polymer solar cells. Polymer Chemistry, 2014, 5, 2540.	3.9	40
15	Dithienogermoleâ€Containing Smallâ€Molecule Solar Cells with 7.3% Efficiency: Inâ€Depth Study on the Effects of Heteroatom Substitution of Si with Ge. Advanced Energy Materials, 2015, 5, 1402044.	19.5	40
16	High-Resolution Filtration Patterning of Silver Nanowire Electrodes for Flexible and Transparent Optoelectronic Devices. ACS Applied Materials & Interfaces, 2020, 12, 32154-32162.	8.0	35
17	Replacing the metal oxide layer with a polymer surface modifier for high-performance inverted polymer solar cells. RSC Advances, 2014, 4, 4791-4795.	3.6	34
18	Thienoisoindigo (TIIG)-based small molecules for the understanding of structureâ€"propertyâ€"device performance correlations. Journal of Materials Chemistry A, 2015, 3, 9899-9908.	10.3	33

#	Article	IF	Citations
19	Straight chain Dâ€“A copolymers based on thienothiophene and benzothiadiazole for efficient polymer field effect transistors and photovoltaic cells. Polymer Chemistry, 2016, 7, 4638-4646.	3.9	29
20	A highly transparent thin film hematite with multi-element dopability for an efficient unassisted water splitting system. Nano Energy, 2020, 76, 105089.	16.0	29
21	Control of Charge Dynamics via Use of Nonionic Phosphonate Chains and Their Effectiveness for Inverted Structure Solar Cells. Advanced Energy Materials, 2015, 5, 1500844.	19.5	28
22	Morphology-Dependent Hole Transfer under Negligible HOMO Difference in Non-Fullerene Acceptor-Based Ternary Polymer Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 7208-7215.	8.0	28
23	Influence of aromatic heterocycle of conjugated side chains on photovoltaic performance of benzodithiophene-based wide-bandgap polymers. Polymer Chemistry, 2016, 7, 4036-4045.	3.9	26
24	Efficiency Exceeding 11% in Tandem Polymer Solar Cells Employing High Openâ€Circuit Voltage Wideâ€Bandgap Ï€â€Conjugated Polymers. Advanced Energy Materials, 2017, 7, 1700782.	19.5	24
25	Highly efficient polymer solar cells with a thienopyrroledione and benzodithiophene containing planar random copolymer. Polymer Chemistry, 2018, 9, 1216-1222.	3.9	19
26	Benzodithiophene-thiophene-based photovoltaic polymers with different side-chains. Journal of Polymer Science Part A, 2015, 53, 854-862.	2.3	15
27	Trifluoromethyl benzimidazole-based conjugated polymers with deep HOMO levels for organic photovoltaics. Synthetic Metals, 2015, 205, 112-120.	3.9	14
28	Effect of Catalyst Crystallinity on V-Based Selective Catalytic Reduction with Ammonia. Nanomaterials, 2021, 11, 1452.	4.1	9
29	Synthesis of the novel 2,2-bithiophene-3,3-dicarboximide-based conjugated copolymers for OPVs. Synthetic Metals, 2013, 177, 65-71.	3.9	8
30	Ammonium Ion Enhanced V2O5-WO3/TiO2 Catalysts for Selective Catalytic Reduction with Ammonia. Nanomaterials, 2021, 11, 2677.	4.1	8
31	Low bandgap small molecules based on 2,2-bithiophene-3,3-dicarboximide for soluble-processed solar cells. Synthetic Metals, 2013, 183, 16-23.	3.9	7
32	Synthesis and photovoltaic properties of alkoxy-benzimidazole containing low band gap polymers. Thin Solid Films, 2015, 580, 29-35.	1.8	6
33	Effect of alkyl chain topology on the structure, optoelectronic properties and solar cell performance of thienopyrroledione-cored oligothiophene chromophores. RSC Advances, 2016, 6, 77655-77665.	3.6	6
34	Semi-crystalline A1â€“Dâ€“A2-type copolymers for efficient polymer solar cells. Polymer Journal, 2017, 49, 141-148.	2.7	6
35	Small Reduced Graphene Oxides for Highly Efficient Oxygen Reduction Catalysts. International Journal of Molecular Sciences, 2021, 22, 12300.	4.1	6
36	Syntheses and solar cell applications of conjugated copolymers containing tetrafluorophenylene units. Polymer, 2015, 71, 113-121.	3.8	5

#	Article	IF	Citations
37	2,1,3â€benzothiadiazoleâ€5,6â€dicarboxylicimide based semicrystalline polymers for photovoltaic cells. Journal of Polymer Science Part A, 2016, 54, 3826-3834.	2.3	5
38	Medium bandgap copolymers based on carbazole and quinoxaline exceeding 1.0 V open-circuit voltages. RSC Advances, 2016, 6, 17624-17631.	3.6	5
39	2,7-Carbazole and thieno[3,4-c]pyrrole-4,6-dione based copolymers with deep highest occupied molecular orbital for photovoltaic cells. Current Applied Physics, 2015, 15, 654-661.	2.4	4
40	Synthesis and photovoltaic properties of benzimidazole-based copolymer with fluorine atom. Polymer Bulletin, 2016, 73, 2511-2519.	3.3	4
41	Syntheses and Properties of Copolymers with <i>N</i>â€Alkylâ€2,2â€²â€bithiopheneâ€3,3â€²â€dicarboximide Unit for Polymer Solar Cells. Bulletin of the Korean Chemical Society, 2015, 36, 2238-2246.	1.9	3
42	Syntheses and solar cell applications of conjugated copolymers consisting of 3,3â€²-dicarboximide and benzodithiophene units with thiophene and bithiophene linkage. Solar Energy Materials and Solar Cells, 2015, 141, 24-31.	6.2	3
43	Photovoltaic Devices: Slotâ€Die and Rollâ€toâ€Roll Processed Single Junction Organic Photovoltaic Cells with the Highest Efficiency (Adv. Energy Mater. 36/2019). Advanced Energy Materials, 2019, 9, 1970138.	19.5	3
44	Regio-regular alternating diketopyrrolopyrrole-based D₁â€"Aâ€"D₂â€"A terpolymers for the enhanced performance of polymer solar cells. RSC Advances, 2019, 9, 42096-42109.	3.6	3
45	Synthesis of the Copolymer Based on Diketopyrrolopyrrole with Didecyl Chain for OPVs. Molecular Crystals and Liquid Crystals, 2014, 600, 88-98.	0.9	1
46	Syntheses and Properties of Conjugated Polymer with Thiopheneâ€Bridged BTI and Indenoindene Units for Organic Solar Cells. Bulletin of the Korean Chemical Society, 2016, 37, 506-514.	1.9	1
47	Solar Cells: Investigation of Charge Carrier Behavior in High Performance Ternary Blend Polymer Solar Cells (Adv. Energy Mater. 19/2016). Advanced Energy Materials, 2016, 6, .	19.5	0