

# Hui Joon Park

## List of Publications by Year in descending order

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98  
papers

3,742  
citations

109137

35  
h-index

133063

59  
g-index

101  
all docs

101  
docs citations

101  
times ranked

5718  
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficiency Enhancement of Organic Solar Cells Using Transparent Plasmonic Ag Nanowire Electrodes. <i>Advanced Materials</i> , 2010, 22, 4378-4383.	11.1	343
2	Transparent Cu nanowire mesh electrode on flexible substrates fabricated by transfer printing and its application in organic solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2010, 94, 1179-1184.	3.0	223
3	Photonic Color Filters Integrated with Organic Solar Cells for Energy Harvesting. <i>ACS Nano</i> , 2011, 5, 7055-7060.	7.3	167
4	Solution-Processible Crystalline NiO Nanoparticles for High-Performance Planar Perovskite Photovoltaic Cells. <i>Scientific Reports</i> , 2016, 6, 30759.	1.6	166
5	Carbon nanotube composite optoacoustic transmitters for strong and high frequency ultrasound generation. <i>Applied Physics Letters</i> , 2010, 97, 234104.	1.5	144
6	Engineering Light at the Nanoscale: Structural Color Filters and Broadband Perfect Absorbers. <i>Advanced Optical Materials</i> , 2017, 5, 1700368.	3.6	141
7	A Facile Route to Polymer Solar Cells with Optimum Morphology Readily Applicable to a Roll-to-Roll Process without Sacrificing High Device Performances. <i>Advanced Materials</i> , 2010, 22, E247-53.	11.1	131
8	Improved Hydrogen Evolution Reaction Performance using MoS <sub>2</sub> /WS <sub>2</sub> Heterostructures by Physicochemical Process. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 8400-8409.	3.2	111
9	Direct synthesis of thickness-tunable MoS <sub>2</sub> quantum dot thin layers: Optical, structural and electrical properties and their application to hydrogen evolution. <i>Nano Energy</i> , 2017, 35, 101-114.	8.2	99
10	Inverted planar perovskite solar cells with dopant free hole transporting material: Lewis base-assisted passivation and reduced charge recombination. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13220-13227.	5.2	96
11	Observation of Enhanced Optical Spin Hall Effect in a Vertical Hyperbolic Metamaterial. <i>ACS Photonics</i> , 2019, 6, 2530-2536.	3.2	96
12	Bifacial Passivation of Organic Hole Transport Interlayer for NiO-Based Perovskite Solar Cells. <i>Advanced Science</i> , 2019, 6, 1802163.	5.6	92
13	Large Area High Density Sub-20 nm SiO <sub>2</sub> Nanostructures Fabricated by Block Copolymer Template for Nanoimprint Lithography. <i>ACS Nano</i> , 2009, 3, 2601-2608.	7.3	83
14	Toward Low-Cost, High-Efficiency, and Scalable Organic Solar Cells with Transparent Metal Electrode and Improved Domain Morphology. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010, 16, 1807-1820.	1.9	68
15	Organic Photovoltaic Cells: From Performance Improvement to Manufacturing Processes. <i>Small</i> , 2015, 11, 2228-2246.	5.2	65
16	Management of transition dipoles in organic hole-transporting materials under solar irradiation for perovskite solar cells. <i>Nature Communications</i> , 2018, 9, 4537.	5.8	64
17	Giant Thermal Tunability of the Lamellar Spacing in Block-Copolymer-Like Supramolecules Formed from Binary-End-Functionalized Polymer Blends. <i>Advanced Materials</i> , 2006, 18, 624-629.	11.1	58
18	Neutral- and Multi-Colored Semitransparent Perovskite Solar Cells. <i>Molecules</i> , 2016, 21, 475.	1.7	56

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19	Effect of Polymer Aggregation on the Open Circuit Voltage in Organic Photovoltaic Cells: Aggregation-Induced Conjugated Polymer Gel and its Application for Preventing Open Circuit Voltage Drop. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 674-680.	4.0	53
20	Flexible High-Color-Purity Structural Color Filters Based on a Higher-Order Optical Resonance Suppression. <i>Scientific Reports</i> , 2019, 9, 14917.	1.6	52
21	Highly Efficient Colored Perovskite Solar Cells Integrated with Ultrathin Subwavelength Plasmonic Nanoresonators. <i>Scientific Reports</i> , 2017, 7, 10640.	1.6	51
22	Wide-Bandgap Perovskite/Gallium Arsenide Tandem Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1903085.	10.2	49
23	Polarization-sensitive tunable absorber in visible and near-infrared regimes. <i>Scientific Reports</i> , 2018, 8, 12393.	1.6	48
24	Omnidirectional Flexible Transmissive Structural Colors with High-Color-Purity and High-Efficiency Exploiting Multicavity Resonances. <i>Advanced Optical Materials</i> , 2017, 5, 1700284.	3.6	47
25	Facile and cost-effective methodology to fabricate MoS <sub>2</sub> counter electrode for efficient dye-sensitized solar cells. <i>Dyes and Pigments</i> , 2018, 151, 7-14.	2.0	47
26	Light Intensity-dependent Variation in Defect Contributions to Charge Transport and Recombination in a Planar MAPbI <sub>3</sub> Perovskite Solar Cell. <i>Scientific Reports</i> , 2019, 9, 19846.	1.6	45
27	A step toward next-generation nanoimprint lithography: extending productivity and applicability. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 121, 343-356.	1.1	44
28	Depth-resolved band alignments of perovskite solar cells with significant interfacial effects. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2563-2571.	5.2	44
29	One-Pot Facile Methodology to Synthesize Chitosan-ZnO-Graphene Oxide Hybrid Composites for Better Dye Adsorption and Antibacterial Activity. <i>Nanomaterials</i> , 2017, 7, 363.	1.9	44
30	Investigation into the Advantages of Pure Perovskite Film without PbI <sub>2</sub> for High Performance Solar Cell. <i>Scientific Reports</i> , 2016, 6, 35994.	1.6	42
31	High-performance colorful semitransparent perovskite solar cells with phase-compensated microcavities. <i>Nano Research</i> , 2018, 11, 2553-2561.	5.8	41
32	Incident-angle-controlled semitransparent colored perovskite solar cells with improved efficiency exploiting a multilayer dielectric mirror. <i>Nanoscale</i> , 2017, 9, 13983-13989.	2.8	40
33	Angle-insensitive and CMOS-compatible Subwavelength Color Printing. <i>Advanced Optical Materials</i> , 2016, 4, 1696-1702.	3.6	38
34	Magnetic, structural and optical behavior of cupric oxide layers for solar cells. <i>Journal of Alloys and Compounds</i> , 2016, 686, 616-627.	2.8	38
35	Unraveling Doping Capability of Conjugated Polymers for Strategic Manipulation of Electric Dipole Layer toward Efficient Charge Collection in Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 2001560.	7.8	38
36	N-phenylindole-diketopyrrolopyrrole-containing narrow band-gap materials for dopant-free hole transporting layer of perovskite solar cell. <i>Organic Electronics</i> , 2016, 37, 134-140.	1.4	36

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37	Graded heterojunction of perovskite/dopant-free polymeric hole-transport layer for efficient and stable metal halide perovskite devices. <i>Nano Energy</i> , 2020, 78, 105159.	8.2	36
38	Solution-processed nickel oxide nanoparticles with NiOOH for hole injection layers of high-efficiency organic light-emitting diodes. <i>Nanoscale</i> , 2016, 8, 17608-17615.	2.8	31
39	Facile fabrication of n-ZnO nanorods/p-Cu <sub>2</sub> O heterojunction and its photodiode property. <i>Optical Materials</i> , 2017, 66, 122-130.	1.7	31
40	Subwavelength nanocavity for flexible structural transmissive color generation with a wide viewing angle. <i>Optica</i> , 2016, 3, 1489.	4.8	30
41	Flexible and Wavelength-Selective MoS <sub>2</sub> Phototransistors with Monolithically Integrated Transmission Color Filters. <i>Scientific Reports</i> , 2017, 7, 40945.	1.6	30
42	Continuous Patterning of Nanogratings by Nanochannel-Guided Lithography on Liquid Resists. <i>Advanced Materials</i> , 2011, 23, 4444-4448.	11.1	29
43	Defect-Passivating Organic/Inorganic Bicomponent Hole-Transport Layer for High Efficiency Metal-Halide Perovskite Device. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 40310-40317.	4.0	29
44	Optimization of polymer photovoltaic cells with bulk heterojunction layers hundreds of nanometers thick: modifying the morphology and cathode interface. <i>Energy and Environmental Science</i> , 2013, 6, 2203.	15.6	28
45	Advanced Heterojunction Structure of Polymer Photovoltaic Cell Generating High Photocurrent with Internal Quantum Efficiency Approaching 100%. <i>Advanced Energy Materials</i> , 2013, 3, 1135-1142.	10.2	28
46	Tailored Nanopatterning by Controlled Continuous Nanoinscribing with Tunable Shape, Depth, and Dimension. <i>ACS Nano</i> , 2019, 13, 11194-11202.	7.3	26
47	Nickel Oxide for Perovskite Photovoltaic Cells. <i>Advanced Photonics Research</i> , 2021, 2, 2000178.	1.7	25
48	Printed Nanostructures for Organic Photovoltaic Cells and Solution-Processed Polymer Light-Emitting Diodes. <i>Energy Technology</i> , 2015, 3, 340-350.	1.8	22
49	Enhanced Gas Sensing Performance of Organic Field-Effect Transistors by Modulating the Dimensions of Triethylsilylethynyl-Anthradithiophene Microcrystal Arrays. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901696.	1.9	22
50	Facile Synthesis of Molybdenum Diselenide Layers for High-Performance Hydrogen Evolution Electrocatalysts. <i>ACS Omega</i> , 2018, 3, 5799-5807.	1.6	20
51	Chitin and Chitosan Based Hybrid Nanocomposites for Super Capacitor Applications. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 1321-1328.	0.9	19
52	Construction of dye-sensitized solar cells using wet chemical route synthesized MoSe <sub>2</sub> counter electrode. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 69, 379-386.	2.9	18
53	Colored dual-functional photovoltaic cells. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 064003.	1.0	17
54	Manipulation of Chain Conformation for Optimum Charge-Transport Pathways in Conjugated Polymers. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 22757-22763.	4.0	17

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55	Optical and Structural Properties of Solvent Free Synthesized Starch/Chitosan-ZnO Nanocomposites. Journal of Nanomaterials, 2017, 2017, 1-8.	1.5	16
56	Modulation of the effective density and refractive index of carbon nanotube forests via nanoimprint lithography. Carbon, 2018, 129, 8-14.	5.4	16
57	Holeâ€œextraction layer dependence of defect formation and operation of planar CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1600395.	1.2	14
58	Shape-selective synthesis of NiO nanostructures for hydrazine oxidation as a nonenzymatic amperometric sensor. RSC Advances, 2016, 6, 86101-86107.	1.7	13
59	Laser-generated focused ultrasound transmitters with frequency-tuned outputs over sub-10-MHz range. Applied Physics Letters, 2019, 115, .	1.5	13
60	Design of Polarization-Independent and Wide-Angle Broadband Absorbers for Highly Efficient Reflective Structural Color Filters. Materials, 2019, 12, 1050.	1.3	13
61	Morphology and charge recombination effects on the performance of near-infrared photodetectors based on conjugated polymers. Organic Electronics, 2019, 64, 274-279.	1.4	13
62	A new method to estimate thermal conductivity of polymer composite using characteristics of fillers. Journal of Applied Polymer Science, 2013, 129, 965-972.	1.3	11
63	All-Optical Ultrasound Transducer Using CNT-PDMS and Etalon Thin-Film Structure. IEEE Photonics Journal, 2015, 7, 1-8.	1.0	11
64	Optical enhancement effects of plasmonic nanostructures on organic photovoltaic cells. Chinese Chemical Letters, 2015, 26, 419-425.	4.8	11
65	Interfacial Electronic Structure of Methylammonium Lead Iodide Grown on a Mesoporous TiO <sub>2</sub> Layer on F-Doped Tin Oxide Substrate. Journal of Physical Chemistry C, 2016, 120, 22460-22465.	1.5	11
66	Defect-passivation of organometal trihalide perovskite with functionalized organic small molecule for enhanced device performance and stability. Dyes and Pigments, 2021, 189, 109255.	2.0	10
67	Enhanced interfacial characteristics of perovskite solar cell with multi-functional organic hole-selective interlayer. Dyes and Pigments, 2022, 197, 109837.	2.0	10
68	Improved solar cell performance by adding ultra-thin Alq3 at the cathode interface. Organic Electronics, 2014, 15, 2710-2714.	1.4	9
69	Hybrid Metal-Halide Perovskite-MoS2 Phototransistor. Journal of Nanoscience and Nanotechnology, 2016, 16, 11722-11726.	0.9	9
70	Optimization of gate-bias stability and gas-sensing properties of triethylsilylethynyl anthradithiophene micro-strip field-effect transistors by incorporating insulating polymer. Organic Electronics, 2020, 85, 105878.	1.4	8
71	Synergistic Effect of Excited State Property and Aggregation Characteristic of Organic Semiconductor on Efficient Holeâ€œTransportation in Perovskite Device. Advanced Functional Materials, 2021, 31, 2007180.	7.8	8
72	Laser-generated focused ultrasound transducer using a perforated photoacoustic lens for tissue characterization. Biomedical Optics Express, 2021, 12, 1375.	1.5	8

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73	Highly Efficient Bifacial Color-Tunable Perovskite Solar Cells. <i>Advanced Optical Materials</i> , 2022, 10, 2101696.	3.6	7
74	Controlled Nanopores by Supramolecular Assembly of End-Functionalized Dendrimer and Homopolymer Blend. <i>ACS Macro Letters</i> , 2014, 3, 1112-1116.	2.3	6
75	Controlled Nanopores in Thin Films of Nonstoichiometrically Supramolecularly Assembled Graft Copolymers. <i>Chemistry - A European Journal</i> , 2015, 21, 18375-18382.	1.7	6
76	Light absorption enhancement in ultrathin perovskite solar cells using light scattering of high-index dielectric nanospheres. <i>Optics Express</i> , 2021, 29, 35366.	1.7	6
77	Effects of $\text{CNT/BaTiO}_3$ Composite Particles Prepared by Mechanical Process on Dielectric Properties of Epoxy Hybrid Films. <i>IEEE Transactions on Advanced Packaging</i> , 2008, 31, 417-422.	1.7	5
78	Soft-Contact Printing of Nanoparticle-Based Nanoink for Functional Nanopatterns. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-6.	1.5	5
79	Nano-geometry dependent electrical property of organic semiconductor. <i>Electronic Materials Letters</i> , 2015, 11, 435-439.	1.0	5
80	Carbon Nanotubes as Etching Masks for the Formation of Polymer Nanostructures. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 44053-44059.	4.0	5
81	Investigation of Printing-Based Graded Bulk-Heterojunction Organic Solar Cells. <i>Energy Technology</i> , 2015, 3, 414-422.	1.8	4
82	Enhanced Optical Properties of Colored Semitransparent Ultrathin Hybrid Solar Cells Employing Fabry-Pérot Etalon With a Dielectric Overlay. <i>IEEE Photonics Journal</i> , 2018, 10, 1-10.	1.0	4
83	Angular selection of transmitted light and enhanced spontaneous emission in grating-coupled hyperbolic metamaterials. <i>Optics Express</i> , 2021, 29, 21458-21472.	1.7	4
84	Novel conjugated polymer for organic photovoltaics: Synthesis and device optimization. <i>Synthetic Metals</i> , 2015, 199, 280-283.	2.1	3
85	Photoacoustic Energy Sensor for Nanosecond Optical Pulse Measurement. <i>Sensors</i> , 2018, 18, 3879.	2.1	3
86	Tandem Solar Cells: Wide-Bandgap Perovskite/Gallium Arsenide Tandem Solar Cells ( <i>Adv. Energy Mater.</i> )	10.2	3
87	Gas Sensors: Enhanced Gas Sensing Performance of Organic Field-Effect Transistors by Modulating the Dimensions of Triethylsilylethynyl-Anthradithiophene Microcrystal Arrays ( <i>Adv. Mater. Interfaces</i> )	10.7849	14
88	Variable-focus optoacoustic lens with wide dynamic range and long focal length by using a flexible polymer nano-composite membrane. <i>Ultrasonics</i> , 2021, 117, 106545.	2.1	2
89	Manipulation of resonance orders and absorbing materials for structural colors in transmission with improved color purity. <i>Optics Express</i> , 2022, 30, 11740.	1.7	2
90	Evaluation of optoacoustic conversion efficiency of light-absorbing films for optoacoustic transmitter applications. , 2011, , .		1

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91	Enhanced efficiency of organic solar cells with silver nanowire electrodes. Proceedings of SPIE, 2011, , .	0.8	1
92	Nanoimprint Lithography: Angle-Insensitive and CMOS-Compatible Subwavelength Color Printing (Advanced Optical Materials 11/2016). Advanced Optical Materials, 2016, 4, 1695-1695.	3.6	1
93	Advanced Manufacturing Technology of Polymer Photovoltaic Cells. Topics in Applied Physics, 2015, , 349-373.	0.4	0
94	Enhanced Structural Distortions Allowing for Dicyanophenylâ€substituted Emitters with Outstanding Thermally Activated Delayed Fluorescence Characteristics. Bulletin of the Korean Chemical Society, 2017, 38, 1101-1104.	1.0	0
95	Subwavelength nanocavity for flexible structural transmissive color generation with wide viewing angle: publisherâ€™s note. Optica, 2017, 4, 345.	4.8	0
96	Perovskite Photovoltaic Cells: Synergistic Effect of Excited State Property and Aggregation Characteristic of Organic Semiconductor on Efficient Holeâ€Transportation in Perovskite Device (Adv.) Tj ETQq0 0 0.8gBT /Overlock 10 T	0.8	0
97	Experimental Demonstration of a Stacked Hybrid Optoacoustic-Piezoelectric Transducer for Localized Heating and Enhanced Cavitation. Micromachines, 2021, 12, 1268.	1.4	0
98	Dual-function ultra-thin a-Si solar cells for color generation and power harvesting. , 2013, , .		0