Il Jeon

List of Publications by Year
in descending order

77 papers	2,710 citations	159358 30 h-index	197535 49 g-index
85 all docs	85 docs citations	85 times ranked	3062 citing authors

#	Article	IF	Citations
1	Single-Walled Carbon Nanotube Film as Electrode in Indium-Free Planar Heterojunction Perovskite Solar Cells: Investigation of Electron-Blocking Layers and Dopants. Nano Letters, 2015, 15, 6665-6671.	4.5	179
2	Direct and Dry Deposited Single-Walled Carbon Nanotube Films Doped with MoO_x as Electron-Blocking Transparent Electrodes for Flexible Organic Solar Cells. Journal of the American Chemical Society, 2015, 137, 7982-7985.	6.6	150
3	Carbon Nanotubes versus Graphene as Flexible Transparent Electrodes in Inverted Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 5395-5401.	2.1	141
4	Highâ€Performance Solutionâ€Processed Doubleâ€Walled Carbon Nanotube Transparent Electrode for Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901204.	10.2	101
5	Carbon-sandwiched perovskite solar cell. Journal of Materials Chemistry A, 2018, 6, 1382-1389.	5.2	98
6	Perovskite Solar Cells Using Carbon Nanotubes Both as Cathode and as Anode. Journal of Physical Chemistry C, 2017, 121, 25743-25749.	1.5	89
7	Lithiumâ€Ion Endohedral Fullerene (Li⁺@C₆₀) Dopants in Stable Perovskite Solar Cells Induce Instant Doping and Antiâ€Oxidation. Angewandte Chemie - International Edition, 2018, 57, 4607-4611.	7.2	89
8	Singleâ€Walled Carbon Nanotubes in Emerging Solar Cells: Synthesis and Electrode Applications. Advanced Energy Materials, 2019, 9, 1801312.	10.2	86
9	Vapor-Assisted Ex-Situ Doping of Carbon Nanotube toward Efficient and Stable Perovskite Solar Cells. Nano Letters, 2019, 19, 2223-2230.	4.5	72
10	Achieving High Efficiency in Solution-Processed Perovskite Solar Cells Using C₆₀/C₇₀ Mixed Fullerenes. ACS Applied Materials & Interfaces, 2018, 10, 39590-39598.	4.0	67
11	Metal-electrode-free Window-like Organic Solar Cells with p-Doped Carbon Nanotube Thin-film Electrodes. Scientific Reports, 2016, 6, 31348.	1.6	66
12	Stable and Reproducible 2D/3D Formamidiniumâ€“Leadâ€“Iodide Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 2486-2493.	2.5	64
13	Controlled Redox of Lithium-Ion Endohedral Fullerene for Efficient and Stable Metal Electrode-Free Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 16553-16558.	6.6	61
14	Polymeric acid-doped transparent carbon nanotube electrodes for organic solar cells with the longest doping durability. Journal of Materials Chemistry A, 2018, 6, 14553-14559.	5.2	60
15	Foldable Perovskite Solar Cells Using Carbon Nanotubeâ€Embedded Ultrathin Polyimide Conductor. Advanced Science, 2021, 8, 2004092.	5.6	60
16	Single-Walled Carbon Nanotubes in Solar Cells. Topics in Current Chemistry, 2018, 376, 4.	3.0	58
17	Scalable and Solidâ€State Redox Functionalization of Transparent Singleâ€Walled Carbon Nanotube Films for Highly Efficient and Stable Solar Cells. Advanced Energy Materials, 2017, 7, 1700449.	10.2	57
18	Semiconducting carbon nanotubes as crystal growth templates and grain bridges in perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 12987-12992.	5.2	57

#	Article	IF	Citations
19	Recent progress in porphyrin- and phthalocyanine-containing perovskite solar cells. RSC Advances, 2020, 10, 32678-32689.	1.7	51
20	Carbon nanotubes to outperform metal electrodes in perovskite solar cells via dopant engineering and hole-selectivity enhancement. Journal of Materials Chemistry A, 2020, 8, 11141-11147.	5.2	51
21	Highly Conductive and Transparent Largeâ€Area Bilayer Graphene Realized by MoCl₅ Intercalation. Advanced Materials, 2017, 29, 1702141.	11.1	50
22	Strong dark current suppression in flexible organic photodetectors by carbon nanotube transparent electrodes. Nano Today, 2021, 37, 101081.	6.2	50
23	Polyaromatic Nanotweezers on Semiconducting Carbon Nanotubes for the Growth and Interfacing of Lead Halide Perovskite Crystal Grains in Solar Cells. Chemistry of Materials, 2020, 32, 5125-5133.	3.2	45
24	Highly Selective and Scalable Fullerene-Cation-Mediated Synthesis Accessing Cyclo[60]fullerenes with Five-Membered Carbon Ring and Their Application to Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 8432-8439.	3.2	44
25	Mixture of [60] and [70]PCBM giving morphological stability in organic solar cells. Applied Physics Letters, 2013, 103, .	1.5	43
26	Superior Noise Suppression, Response Time, and Device Stability of Nonâ€Fullerene System over Fullerene Counterpart in Organic Photodiode. Advanced Functional Materials, 2020, 30, 2001402.	7.8	42
27	Multifunctional Effect of pâ€Doping, Antireflection, and Encapsulation by Polymeric Acid for High Efficiency and Stable Carbon Nanotubeâ€Based Silicon Solar Cells. Advanced Energy Materials, 2020, 10, 1902389.	10.2	40
28	Fullerene-Cation-Mediated Noble-Metal-Free Direct Introduction of Functionalized Aryl Groups onto [60]Fullerene. Organic Letters, 2018, 20, 3372-3376.	2.4	35
29	Role and Contribution of Polymeric Additives in Perovskite Solar Cells: Crystal Growth Templates and Grain Boundary Passivators. Solar Rrl, 2021, 5, 2000783.	3.1	35
30	Air-processed inverted organic solar cells utilizing a 2-aminoethanol-stabilized ZnO nanoparticle electron transport layer that requires no thermal annealing. Journal of Materials Chemistry A, 2014, 2, 18754-18760.	5.2	33
31	Denatured M13 Bacteriophageâ€Templated Perovskite Solar Cells Exhibiting High Efficiency. Advanced Science, 2020, 7, 2000782.	5.6	31
32	Homogeneously Miscible Fullerene inducing Vertical Gradient in Perovskite Thinâ€Film toward Highly Efficient Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	28
33	Li@C₆₀ endohedral fullerene as a supraatomic dopant for C₆₀ electron-transporting layers promoting the efficiency of perovskite solar cells. Chemical Communications, 2019, 55, 11837-11839.	2.2	26
34	Carbon Nanotube Mask Filters and Their Hydrophobic Barrier and Hyperthermic Antiviral Effects on SARS-CoV-2. ACS Applied Nano Materials, 2021, 4, 8135-8144.	2.4	25
35	Largeâ€Diameter Carbon Nanotube Transparent Conductor Overcoming Performanceâ€“Yield Tradeoff. Advanced Functional Materials, 2022, 32, 2103397.	7.8	24
36	Comparative density functional theoryâ€“density functional tight binding study of fullerene derivatives: effects due to fullerene size, addends, and crystallinity on band structure, charge transport and optical properties. Physical Chemistry Chemical Physics, 2017, 19, 28330-28343.	1.3	23

#	Article	IF	Citations
37	Engineering high-performance and air-stable PBTZT-stat-BDTT-8:PC₆₁BM/PC₇₁BM organic solar cells. Journal of Materials Chemistry A, 2018, 6, 5746-5751.	5.2	22
38	Multilayered MoS2 nanoflakes bound to carbon nanotubes as electron acceptors in bulk heterojunction inverted organic solar cells. Organic Electronics, 2015, 17, 275-280.	1.4	21
39	Formation of environmentally stable hole-doped graphene films with instantaneous and high-density carrier doping via a boron-based oxidant. Npj 2D Materials and Applications, 2019, 3, .	3.9	21
40	Interface Engineering of Metal Oxides using Ammonium Anthracene in Inverted Organic Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 29866-29871.	4.0	20
41	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virusâ€Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3%. Advanced Energy Materials, 2021, 11, 2101221.	10.2	20
42	Carbon Nanotube Electrodeâ€Based Perovskiteâ€“Silicon Tandem Solar Cells. Solar Rrl, 2020, 4, 2000353.	3.1	19
43	Lithiumâ€Ion Endohedral Fullerene (Li⁺@C₆₀) Dopants in Stable Perovskite Solar Cells Induce Instant Doping and Antiâ€Oxidation. Angewandte Chemie, 2018, 130, 4697-4701.	1.6	18
44	Single-Walled Carbon Nanotubes in Solar Cells. Topics in Current Chemistry Collections, 2019, , 271-298.	0.2	18
45	Environmentally Compatible Lead-Free Perovskite Solar Cells and Their Potential as Light Harvesters in Energy Storage Systems. Nanomaterials, 2021, 11, 2066.	1.9	18
46	Room temperature-processed inverted organic solar cells using high working-pressure-sputtered ZnO films. Journal of Materials Chemistry A, 2016, 4, 18763-18768.	5.2	17
47	Investigation of charge interaction between fullerene derivatives and singleâ€walled carbon nanotubes. InformaÃnÃ-MateriÃ¡ly, 2019, 1, 559-570.	8.5	17
48	Gap Plasmon of Virusâ€Templated Biohybrid Nanostructures Uplifting the Performance of Organic Optoelectronic Devices. Advanced Optical Materials, 2020, 8, 1902080.	3.6	17
49	Enhancement of Low-field Magnetoresistance in Self-Assembled Epitaxial La0.67Ca0.33MnO3:NiO and La0.67Ca0.33MnO3:Co3O4 Composite Films via Polymer-Assisted Deposition. Scientific Reports, 2016, 6, 26390.	1.6	16
50	High-Working-Pressure Sputtering of ZnO for Stable and Efficient Perovskite Solar Cells. ACS Applied Electronic Materials, 2019, 1, 389-396.	2.0	16
51	Regiocontrolled Electrosynthesis of [60]Fullerene Bisadducts: Photovoltaic Performance and Crystal Structures of C₆₀ o-Quinodimethane Bisadducts. Journal of Organic Chemistry, 2017, 82, 8676-8685.	1.7	15
52	Indium Tin Oxide-Free Small Molecule Organic Solar Cells Using Single-Walled Carbon Nanotube Electrodes. ECS Journal of Solid State Science and Technology, 2017, 6, M3181-M3184.	0.9	14
53	Non-doped and unsorted single-walled carbon nanotubes as carrier-selective, transparent, and conductive electrode for perovskite solar cells. MRS Communications, 2018, 8, 1058-1063.	0.8	14
54	Multiâ€Functional MoO₃ Doping of Carbonâ€Nanotube Top Electrodes for Highly Transparent and Efficient Semiâ€Transparent Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	14

#	Article	IF	Citations
55	Enhancement of Openâ€Circuit Voltage by Using the 58â€Ï€ Silylmethyl Fullerenes in Smallâ€Molecule Organic Solar Cells. Chemistry - an Asian Journal, 2016, 11, 1268-1272.	1.7	12
56	One-step direct oxidation of fullerene-fused alkoxy ethers to ketones for evaporable fullerene derivatives. Communications Chemistry, 2021, 4, .	2.0	12
57	Stability of diketopyrrolopyrrole small-molecule inverted organic solar cells. Organic Electronics, 2016, 35, 193-198.	1.4	11
58	MoS2-carbon nanotube heterostructure as efficient hole transporters and conductors in perovskite solar cells. Applied Physics Express, 2020, 13, 075009.	1.1	11
59	Controlled Removal of Surfactants from Doubleâ€Walled Carbon Nanotubes for Stronger pâ€Doping Effect and Its Demonstration in Perovskite Solar Cells. Small Methods, 2021, 5, e2100080.	4.6	11
60	M13 bacteriophage-templated gold nanowires as stretchable electrodes in perovskite solar cells. Materials Advances, 2021, 2, 488-496.	2.6	10
61	A Facile and Effective Ozone Exposure Method for Wettability and Energy-Level Tuning of Hole-Transporting Layers in Lead-Free Tin Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 42935-42943.	4.0	10
62	Multifunctionalization of C₇₀ at the two polar regions with a high regioselectivity via oxazolination and benzylation reactions. Chemical Communications, 2016, 52, 5710-5713.	2.2	9
63	Anthracene-Based Organic Small-Molecule Electron-Injecting Material for Inverted Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2018, 10, 11810-11817.	4.0	9
64	High quantum efficiency and stability of biohybrid quantum dots nanojunctions in bacteriophage-constructed perovskite. Materials Today Nano, 2021, 13, 100099.	2.3	9
65	Accelerated Design of High-Efficiency Lead-Free Tin Perovskite Solar Cells via Machine Learning. International Journal of Precision Engineering and Manufacturing - Green Technology, 2023, 10, 109-121.	2.7	9
66	Indiumâ€Free Inverted Organic Solar Cells Using Niobiumâ€Doped Titanium Oxide with Integrated Dual Function of Transparent Electrode and Electron Transport Layer. Advanced Electronic Materials, 2016, 2, 1500341.	2.6	8
67	An efficient organic solvent-free solution-processing strategy for high-mobility metal chalcogenide film growth. Green Chemistry, 2017, 19, 946-951.	4.6	8
68	Multi-Walled Carbon Nanotube-Assisted Encapsulation Approach for Stable Perovskite Solar Cells. Molecules, 2021, 26, 5060.	1.7	8
69	Abnormally Highâ€Lithium Storage in Pure Crystalline C₆₀ Nanoparticles. Advanced Materials, 2021, 33, e2104763.	11.1	7
70	Solar Cells: Singleâ€Walled Carbon Nanotubes in Emerging Solar Cells: Synthesis and Electrode Applications (Adv. Energy Mater. 23/2019). Advanced Energy Materials, 2019, 9, 1970091.	10.2	2
71	Utilization of Multifunctional Environmentâ€Friendly Organic Dopants Inspired from Nature for Carbon Nanotubeâ€Based Planar Heterojunction Silicon Solar Cells. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	2
72	Scalable eDIPS-based single-walled carbon nanotube films for conductive transparent electrodes in organic solar cells. Applied Physics Express, 2022, 15, 046505.	1.1	2

#	Article	IF	Citations
73	A New Optical Film with Antismudge Function and High Durability. Japanese Journal of Applied Physics, 2009, 48, 122401.	0.8	1
74	Silicon Solar Cells: Multifunctional Effect of pâ€Doping, Antireflection, and Encapsulation by Polymeric Acid for High Efficiency and Stable Carbon Nanotubeâ€Based Silicon Solar Cells (Adv. Energy) Tj ETQq0 0 0 rgBT /Overlock 10	10.2	1
75	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virusâ€Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3% (Adv. Energy Mater. 38/2021). Advanced Energy Materials, 2021, 11, 2170150.	10.2	1
76	Abnormally Highâ€Lithium Storage in Pure Crystalline C₆₀ Nanoparticles (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	11.1	1
77	Highly Stable and Efficient 2D/3D Formamidinium-Lead-Iodide Inverted-Type Perovskite Solar Cells. , 0, , .		0