Tae-Hee Han

List of Publications by Year
in descending order

55 papers	6,347 citations	87888 38 h-index	155660 55 g-index
57 all docs	57 docs citations	57 times ranked	8957 citing authors

#	Article	IF	Citations
1	Engineering electrodes and metal halide perovskite materials for flexible/stretchable perovskite solar cells and light-emitting diodes. Energy and Environmental Science, 2021, 14, 2009-2035.	30.8	46
2	Perovskite Lightâ€Emitting Diodes: Surfaceâ€2D/Bulkâ€3D Heterophased Perovskite Nanograins for Longâ€Termâ€Stable Lightâ€Emitting Diodes (Adv. Mater. 1/2020). Advanced Materials, 2020, 32, 2070007.	21.0	3
3	Surfaceâ€2D/Bulkâ€3D Heterophased Perovskite Nanograins for Longâ€Termâ€Stable Lightâ€Emitting Diodes. Advanced Materials, 2020, 32, e1905674.	21.0	59
4	Hermetic seal for perovskite solar cells: An improved plasma enhanced atomic layer deposition encapsulation. Nano Energy, 2020, 69, 104375.	16.0	78
5	Molecular Interaction Regulates the Performance and Longevity of Defect Passivation for Metal Halide Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 20071-20079.	13.7	145
6	Solid-phase hetero epitaxial growth of Î±-phase formamidinium perovskite. Nature Communications, 2020, 11, 5514.	12.8	71
7	Molecularâ€Scale Strategies to Achieve High Efficiency and Low Efficiency Rollâ€off in Simplified Solutionâ€Processed Organic Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 2005292.	14.9	21
8	Characterizing the Efficiency of Perovskite Solar Cells and Light-Emitting Diodes. Joule, 2020, 4, 1206-1235.	24.0	53
9	Efficient Flexible Inorganic Perovskite Light-Emitting Diodes Fabricated with CsPbBr₃ Emitters Prepared via Low-Temperature in Situ Dynamic Thermal Crystallization. Nano Letters, 2020, 20, 4673-4680.	9.1	55
10	A Polymerizationâ€Assisted Grain Growth Strategy for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e1907769.	21.0	161
11	Hybrid Integrated Photomedical Devices for Wearable Vital Sign Tracking. ACS Sensors, 2020, 5, 1582-1588.	7.8	14
12	High Performance Indiumâ€Galliumâ€Zinc Oxide Thin Film Transistor via Interface Engineering. Advanced Functional Materials, 2020, 30, 2003285.	14.9	33
13	A 2D Titanium Carbide MXene Flexible Electrode for Highâ€Efficiency Lightâ€Emitting Diodes. Advanced Materials, 2020, 32, e2000919.	21.0	122
14	Steric Impediment of Ion Migration Contributes to Improved Operational Stability of Perovskite Solar Cells. Advanced Materials, 2020, 32, e1906995.	21.0	142
15	A Smallâ€Molecule â€œCharge Driverâ€•enables Perovskite Quantum Dot Solar Cells with Efficiency Approaching 13%. Advanced Materials, 2019, 31, e1900111.	21.0	92
16	Perovskite-polymer composite cross-linker approach for highly-stable and efficient perovskite solar cells. Nature Communications, 2019, 10, 520.	12.8	405
17	Ideal conducting polymer anode for perovskite light-emitting diodes by molecular interaction decoupling. Nano Energy, 2019, 60, 324-331.	16.0	28
18	Efficient Perovskite Lightâ€Emitting Diodes Using Polycrystalline Coreâ€“Shellâ€Mimicked Nanograins. Advanced Functional Materials, 2019, 29, 1902017.	14.9	76

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19	Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. Advanced Materials, 2019, 31, e1803515.	21.0	315
20	Vapor-Assisted Ex-Situ Doping of Carbon Nanotube toward Efficient and Stable Perovskite Solar Cells. Nano Letters, 2019, 19, 2223-2230.	9.1	72
21	Solution-Processed n-Type Graphene Doping for Cathode in Inverted Polymer Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2018, 10, 4874-4881.	8.0	24
22	Tuning Molecular Interactions for Highly Reproducible and Efficient Formamidinium Perovskite Solar Cells via Adduct Approach. Journal of the American Chemical Society, 2018, 140, 6317-6324.	13.7	338
23	Extremely stable graphene electrodes doped with macromolecular acid. Nature Communications, 2018, 9, 2037.	12.8	96
24	2D perovskite stabilized phase-pure formamidinium perovskite solar cells. Nature Communications, 2018, 9, 3021.	12.8	575
25	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.	10.3	60
26	Efficient Flexible Organic/Inorganic Hybrid Perovskite Lightâ€Emitting Diodes Based on Graphene Anode. Advanced Materials, 2017, 29, 1605587.	21.0	200
27	Graphene-based flexible electronic devices. Materials Science and Engineering Reports, 2017, 118, 1-43.	31.8	194
28	Universal high work function flexible anode for simplified ITO-free organic and perovskite light-emitting diodes with ultra-high efficiency. NPG Asia Materials, 2017, 9, e411-e411.	7.9	60
29	Conducting Polymers as Anode Buffer Materials in Organic and Perovskite Optoelectronics. Advanced Optical Materials, 2017, 5, 1600512.	7.3	63
30	Versatile pâ€Type Chemical Doping to Achieve Ideal Flexible Graphene Electrodes. Angewandte Chemie - International Edition, 2016, 55, 6197-6201.	13.8	78
31	Scalable Noninvasive Organic Fiber Lithography for Largeâ€Area Optoelectronics. Advanced Optical Materials, 2016, 4, 967-972.	7.3	13
32	Versatile pâ€Type Chemical Doping to Achieve Ideal Flexible Graphene Electrodes. Angewandte Chemie, 2016, 128, 6305-6309.	2.0	8
33	Controlled surface oxidation of multi-layered graphene anode to increase hole injection efficiency in organic electronic devices. 2D Materials, 2016, 3, 014003.	4.4	12
34	Approaching ultimate flexible organic light-emitting diodes using a graphene anode. NPG Asia Materials, 2016, 8, e303-e303.	7.9	55
35	Synergetic electrode architecture for efficient graphene-based flexible organic light-emitting diodes. Nature Communications, 2016, 7, 11791.	12.8	163
36	Ultrahigh-efficiency solution-processed simplified small-molecule organic light-emitting diodes using universal host materials. Science Advances, 2016, 2, e1601428.	10.3	122

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37	OLEDs: Scalable Noninvasive Organic Fiber Lithography for Large-Area Optoelectronics (Advanced) Tj ETQq1 1 0.784314 rgBT /Overlock	7.3	1
38	Synergetic Influences of Mixed-Host Emitting Layer Structures and Hole Injection Layers on Efficiency and Lifetime of Simplified Phosphorescent Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2016, 8, 6152-6163.	8.0	43
39	Improving the Efficiency of Flexible Organic Light-emitting Diodes via Alternating High- and Low-index Layers. , 2016, , .		1
40	Flexible Lamination Encapsulation. Advanced Materials, 2015, 27, 4308-4314.	21.0	61
41	Flexible Encapsulation: Flexible Lamination Encapsulation (Adv. Mater. 29/2015). Advanced Materials, 2015, 27, 4387-4387.	21.0	2
42	Elucidating the Crucial Role of Hole Injection Layer in Degradation of Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2015, 7, 3117-3125.	8.0	59
43	Improvement of work function and hole injection efficiency of graphene anode using CHF ₃ plasma treatment. 2D Materials, 2015, 2, 014002.	4.4	17
44	Flexible transparent electrodes for organic light-emitting diodes. Journal of Information Display, 2015, 16, 71-84.	4.0	43
45	Flexible organic light-emitting diodes for solid-state lighting. Journal of Photonics for Energy, 2015, 5, 053599.	1.3	34
46	Polyethylene Imine as an Ideal Interlayer for Highly Efficient Inverted Polymer Lightâ€Emitting Diodes. Advanced Functional Materials, 2014, 24, 3808-3814.	14.9	196
47	A systematic identification of efficiency enrichment between thiazole and benzothiazole based yellow iridium(iii) complexes. Journal of Materials Chemistry C, 2014, 2, 9398-9405.	5.5	22
48	An Easy Route to Red Emitting Homoleptic Ir^{III} Complex for Highly Efficient Solutionâ€Processed Phosphorescent Organic Lightâ€Emitting Diodes. Chemistry - A European Journal, 2014, 20, 8260-8264.	3.3	38
49	Organic solar cells using CVD-grown graphene electrodes. Nanotechnology, 2014, 25, 014012.	2.6	81
50	Extremely efficient flexible organic light-emitting diodes with modified graphene anode. Nature Photonics, 2012, 6, 105-110.	31.4	1,272
51	Molecularly Controlled Interfacial Layer Strategy Toward Highly Efficient Simpleâ€Structured Organic Lightâ€Emitting Diodes. Advanced Materials, 2012, 24, 1487-1493.	21.0	92
52	Graphenes Converted from Polymers. Journal of Physical Chemistry Letters, 2011, 2, 493-497.	4.6	158
53	Polyanilineâ€Based Conducting Polymer Compositions with a High Work Function for Holeâ€Injection Layers in Organic Lightâ€Emitting Diodes: Formation of Ohmic Contacts. ChemSusChem, 2011, 4, 363-368.	6.8	49
54	Inside Cover: Polyaniline-Based Conducting Polymer Compositions with a High Work Function for Hole-Injection Layers in Organic Light-Emitting Diodes: Formation of Ohmic Contacts (ChemSusChem) Tj ETQq0 0 0 rgBT /Overlock 10 T	6.8	0

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55	Soluble Selfâ€Doped Conducting Polymer Compositions with Tunable Work Function as Hole Injection/Extraction Layers in Organic Optoelectronics. Angewandte Chemie - International Edition, 2011, 50, 6274-6277.	13.8	95