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	Extremely efficient flexible organic light-emitting diodes with modified graphene anode. Nature Photonics, 2012, 6, 105-110.	31.4	1,272
2	2D perovskite stabilized phase-pure formamidinium perovskite solar cells. Nature Communications, 2018, 9, 3021.	12.8	575
3	Perovskite-polymer composite cross-linker approach for highly-stable and efficient perovskite solar cells. Nature Communications, 2019, 10, 520.	12.8	405
4	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
5	Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. Advanced Materials, 2019, 31, e1803515.	21.0	315
6	Efficient Flexible Organic/Inorganic Hybrid Perovskite Lightâ€Emitting Diodes Based on Graphene Anode. Advanced Materials, 2017, 29, 1605587.	21.0	200
7	Polyethylene Imine as an Ideal Interlayer for Highly Efficient Inverted Polymer Lightâ€Emitting Diodes. Advanced Functional Materials, 2014, 24, 3808-3814.	14.9	196
8	Graphene-based flexible electronic devices. Materials Science and Engineering Reports, 2017, 118, 1-43.	31.8	194
9	Synergetic electrode architecture for efficient graphene-based flexible organic light-emitting diodes. Nature Communications, 2016, 7, 11791.	12.8	163
10	A Polymerizationâ€Assisted Grain Growth Strategy for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e1907769.	21.0	161
11	Graphenes Converted from Polymers. Journal of Physical Chemistry Letters, 2011, 2, 493-497.	4.6	158
12	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
13	Steric Impediment of Ion Migration Contributes to Improved Operational Stability of Perovskite Solar Cells. Advanced Materials, 2020, 32, e1906995.	21.0	142
14	Ultrahigh-efficiency solution-processed simplified small-molecule organic light-emitting diodes using universal host materials. Science Advances, 2016, 2, e1601428.	10.3	122
15	A 2D Titanium Carbide MXene Flexible Electrode for Highâ€Efficiency Lightâ€Emitting Diodes. Advanced Materials, 2020, 32, e2000919.	21.0	122
16	Extremely stable graphene electrodes doped with macromolecular acid. Nature Communications, 2018, 9, 2037.	12.8	96
17	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
18	Molecularly Controlled Interfacial Layer Strategy Toward Highly Efficient Simpleâ€Structured Organic Lightâ€Emitting Diodes. Advanced Materials, 2012, 24, 1487-1493.	21.0	92

#	Article	IF	Citations
19	A Smallâ€Molecule â€œCharge Driverâ€•enables Perovskite Quantum Dot Solar Cells with Efficiency Approaching 13%. Advanced Materials, 2019, 31, e1900111.	21.0	92
20	Organic solar cells using CVD-grown graphene electrodes. Nanotechnology, 2014, 25, 014012.	2.6	81
21	Versatile pâ€Type Chemical Doping to Achieve Ideal Flexible Graphene Electrodes. Angewandte Chemie - International Edition, 2016, 55, 6197-6201.	13.8	78
22	Hermetic seal for perovskite solar cells: An improved plasma enhanced atomic layer deposition encapsulation. Nano Energy, 2020, 69, 104375.	16.0	78
23	Efficient Perovskite Lightâ€Emitting Diodes Using Polycrystalline Coreâ€“Shellâ€Mimicked Nanograins. Advanced Functional Materials, 2019, 29, 1902017.	14.9	76
24	Vapor-Assisted Ex-Situ Doping of Carbon Nanotube toward Efficient and Stable Perovskite Solar Cells. Nano Letters, 2019, 19, 2223-2230.	9.1	72
25	Solid-phase hetero epitaxial growth of Î±-phase formamidinium perovskite. Nature Communications, 2020, 11, 5514.	12.8	71
26	Conducting Polymers as Anode Buffer Materials in Organic and Perovskite Optoelectronics. Advanced Optical Materials, 2017, 5, 1600512.	7.3	63
27	Flexible Lamination Encapsulation. Advanced Materials, 2015, 27, 4308-4314.	21.0	61
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	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
30	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
31	Surfaceâ€2D/Bulkâ€3D Heterophased Perovskite Nanograins for Longâ€Termâ€Stable Lightâ€Emitting Diodes. Advanced Materials, 2020, 32, e1905674.	21.0	59
32	Approaching ultimate flexible organic light-emitting diodes using a graphene anode. NPG Asia Materials, 2016, 8, e303-e303.	7.9	55
33	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
34	Characterizing the Efficiency of Perovskite Solar Cells and Light-Emitting Diodes. Joule, 2020, 4, 1206-1235.	24.0	53
35	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
36	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

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37	Flexible transparent electrodes for organic light-emitting diodes. Journal of Information Display, 2015, 16, 71-84.	4.0	43
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	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
40	Flexible organic light-emitting diodes for solid-state lighting. Journal of Photonics for Energy, 2015, 5, 053599.	1.3	34
41	High Performance Indiumâ€Galliumâ€Zinc Oxide Thin Film Transistor via Interface Engineering. Advanced Functional Materials, 2020, 30, 2003285.	14.9	33
42	Ideal conducting polymer anode for perovskite light-emitting diodes by molecular interaction decoupling. Nano Energy, 2019, 60, 324-331.	16.0	28
43	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
44	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
45	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
46	Improvement of work function and hole injection efficiency of graphene anode using CHF ₃ plasma treatment. 2D Materials, 2015, 2, 014002.	4.4	17
47	Hybrid Integrated Photomedical Devices for Wearable Vital Sign Tracking. ACS Sensors, 2020, 5, 1582-1588.	7.8	14
48	Scalable Noninvasive Organic Fiber Lithography for Largeâ€Area Optoelectronics. Advanced Optical Materials, 2016, 4, 967-972.	7.3	13
49	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
50	Versatile pâ€Type Chemical Doping to Achieve Ideal Flexible Graphene Electrodes. Angewandte Chemie, 2016, 128, 6305-6309.	2.0	8
51	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
52	Flexible Encapsulation: Flexible Lamination Encapsulation (Adv. Mater. 29/2015). Advanced Materials, 2015, 27, 4387-4387.	21.0	2
53	OLEDs: Scalable Noninvasive Organic Fiber Lithography for Large-Area Optoelectronics (Advanced) Tj ETQq1 1 0.784314 rgBT /Overlo	7.3	1
54	Improving the Efficiency of Flexible Organic Light-emitting Diodes via Alternating High- and Low-index Layers. , 2016, , .		1

#	Article	IF	Citations
55	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 ETQq1 1 0.784314 rgBT /Overl	6.8	0