Jeonghun Kwak

List of Publications by Year
in descending order

105 papers	4,557 citations	126907 33 h-index	102487 66 g-index
108 all docs	108 docs citations	108 times ranked	5618 citing authors

#	Article	IF	Citations
1	Bright and Efficient Full-Color Colloidal Quantum Dot Light-Emitting Diodes Using an Inverted Device Structure. Nano Letters, 2012, 12, 2362-2366.	9.1	817
2	Highly Efficient Greenâ€Lightâ€Emitting Diodes Based on CdSe@ZnS Quantum Dots with a Chemicalâ€Composition Gradient. Advanced Materials, 2009, 21, 1690-1694.	21.0	265
3	Multicolored Light-Emitting Diodes Based on All-Quantum-Dot Multilayer Films Using Layer-by-Layer Assembly Method. Nano Letters, 2010, 10, 2368-2373.	9.1	216
4	R/G/B/Natural White Light Thin Colloidal Quantum Dotâ€Based Lightâ€Emitting Devices. Advanced Materials, 2014, 26, 6387-6393.	21.0	193
5	Transition-metal-based layered double hydroxides tailored for energy conversion and storage. Journal of Materials Chemistry A, 2018, 6, 12-29.	10.3	170
6	Siliconâ€Cored Anthracene Derivatives as Host Materials for Highly Efficient Blue Organic Lightâ€Emitting Devices. Advanced Materials, 2008, 20, 2720-2729.	21.0	162
7	Highly Efficient Red Phosphorescent OLEDs based on Nonâ€Conjugated Siliconâ€Cored Spirobifluorene Derivative Doped with Irâ€Complexes. Advanced Functional Materials, 2009, 19, 420-427.	14.9	140
8	Quantum Dotâ^'Block Copolymer Hybrids with Improved Properties and Their Application to Quantum Dot Light-Emitting Devices. ACS Nano, 2009, 3, 1063-1068.	14.6	132
9	Perspective on synthesis, device structures, and printing processes for quantum dot displays. Optical Materials Express, 2012, 2, 594.	3.0	120
10	Effect of Ï€-conjugated bridges of TPD-based medium bandgap conjugated copolymers for efficient tandem organic photovoltaic cells. Energy and Environmental Science, 2014, 7, 4118-4131.	30.8	115
11	High-resolution patterning of colloidal quantum dots via non-destructive, light-driven ligand crosslinking. Nature Communications, 2020, 11, 2874.	12.8	114
12	Bright and Stable Quantum Dot Lightâ€Emitting Diodes. Advanced Materials, 2022, 34, e2106276.	21.0	109
13	High-Power Genuine Ultraviolet Light-Emitting Diodes Based On Colloidal Nanocrystal Quantum Dots. Nano Letters, 2015, 15, 3793-3799.	9.1	105
14	Progress of display performances: AR, VR, QLED, OLED, and TFT. Journal of Information Display, 2019, 20, 1-8.	4.0	92
15	Characterization of Quantum Dot/Conducting Polymer Hybrid Films and Their Application to Lightâ€Emitting Diodes. Advanced Materials, 2009, 21, 5022-5026.	21.0	90
16	Improvement of electron injection in inverted bottom-emission blue phosphorescent organic light emitting diodes using zinc oxide nanoparticles. Applied Physics Letters, 2010, 96, .	3.3	85
17	Progress in the development of the display performance of AR, VR, QLED and OLED devices in recent years. Journal of Information Display, 2022, 23, 1-17.	4.0	80
18	A Bioinspired Stretchable Sensoryâ€Neuromorphic System. Advanced Materials, 2021, 33, e2104690.	21.0	67

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19	Single Chain White-Light-Emitting Polyfluorene Copolymers Containing Iridium Complex Coordinated on the Main Chain. Macromolecules, 2010, 43, 1379-1386.	4.8	62
20	Deep blue light-emitting diodes based on Cd1âˆ’xZnxS@ZnS quantum dots. Nanotechnology, 2009, 20, 075202.	2.6	58
21	Sulfuric acid vapor treatment for enhancing the thermoelectric properties of PEDOT:PSS thin-films. Journal of Materials Science: Materials in Electronics, 2016, 27, 6122-6127.	2.2	58
22	Improved Efficiency of Inverted Organic Light-Emitting Diodes Using Tin Dioxide Nanoparticles as an Electron Injection Layer. ACS Applied Materials & Interfaces, 2013, 5, 1977-1981.	8.0	56
23	High open circuit voltage organic photovoltaic cells fabricated using 9,9â€²-bifluorenylidene as a non-fullerene type electron acceptor. Chemical Communications, 2013, 49, 10950.	4.1	55
24	Highly Efficient and Bright Inverted Topâ€Emitting InP Quantum Dot Lightâ€Emitting Diodes Introducing a Holeâ€Suppressing Interlayer. Small, 2019, 15, e1905162.	10.0	54
25	Progress of display performances: AR, VR, QLED, and OLED. Journal of Information Display, 2020, 21, 1-9.	4.0	52
26	A Planar Cyclopentadithiopheneâ€“Benzothiadiazole-Based Copolymer with sp²-Hybridized Bis(alkylsulfanyl)methylene Substituents for Organic Thermoelectric Devices. Macromolecules, 2018, 51, 3360-3368.	4.8	51
27	Silver Nanowireâ€“Conducting Polymerâ€“ITO Hybrids for Flexible and Transparent Conductive Electrodes with Excellent Durability. ACS Applied Materials & Interfaces, 2015, 7, 15928-15934.	8.0	50
28	High-Mobility Pyrene-Based Semiconductor for Organic Thin-Film Transistors. ACS Applied Materials & Interfaces, 2013, 5, 3855-3860.	8.0	46
29	New carbazole-based host material for low-voltage and highly efficient red phosphorescent organic light-emitting diodes. Journal of Materials Chemistry, 2012, 22, 6351.	6.7	40
30	Flexible transparent film heaters using a ternary composite of silver nanowire, conducting polymer, and conductive oxide. RSC Advances, 2019, 9, 5731-5737.	3.6	39
31	Enhanced Performance of Pixelated Quantum Dot Lightâ€Emitting Diodes by Inkjet Printing of Quantum Dotâ€“Polymer Composites. Advanced Optical Materials, 2021, 9, 2002129.	7.3	39
32	Overcoming tradeoff between mobility and bias stability in organic field-effect transistors according to the self-assembled monolayer chain lengths. Applied Physics Letters, 2014, 104, .	3.3	37
33	Reduced efficiency roll-off in light-emitting diodes enabled by quantum dotâ€“conducting polymer nanohybrids. Journal of Materials Chemistry C, 2014, 2, 4974-4979.	5.5	36
34	Ileâ€Lysâ€Valâ€alaâ€Val (IKVAV) peptide for neuronal tissue engineering. Polymers for Advanced Technologies, 2019, 30, 4-12.	3.2	35
35	Tailoring the Electronic Landscape of Quantum Dot Light-Emitting Diodes for High Brightness and Stable Operation. ACS Nano, 2020, 14, 17496-17504.	14.6	33
36	Tetrafluorene-9,9â€²-bifluorenylidene as a non-fullerene type electron acceptor for P3HT-based bulk-heterojunction polymer solar cells. Solar Energy Materials and Solar Cells, 2013, 116, 275-282.	6.2	32

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37	Soft Contact Transplanted Nanocrystal Quantum Dots for Light-Emitting Diodes: Effect of Surface Energy on Device Performance. ACS Applied Materials & Interfaces, 2015, 7, 10828-10833.	8.0	31
38	Degenerately Doped Semiâ€Crystalline Polymers for High Performance Thermoelectrics. Advanced Functional Materials, 2021, 31, 2006900.	14.9	31
39	High-performance organic semiconductors for thin-film transistors based on 2,7-divinyl[1]benzothieno[3,2-b]benzothiophene. Journal of Materials Chemistry, 2008, 18, 4698.	6.7	29
40	Enhanced thermoelectric properties of sorbitol-mixed PEDOT:PSS thin films by chemical reduction. Journal of Materials Science: Materials in Electronics, 2015, 26, 2838-2843.	2.2	29
41	Synthesis and Electroluminescence of New Polyfluorene Copolymers Containing Iridium Complex Coordinated on the Main Chain. Macromolecules, 2009, 42, 5551-5557.	4.8	28
42	Injection-modulated polarity conversion by charge carrier density control via a self-assembled monolayer for all-solution-processed organic field-effect transistors. Scientific Reports, 2017, 7, 46365.	3.3	27
43	Optimization of Thermoelectric Properties of Polymers by Incorporating Oligoethylene Glycol Side Chains and Sequential Solution Doping with Preannealing Treatment. Macromolecules, 2020, 53, 7063-7072.	4.8	25
44	Hole transport materials with high glass transition temperatures for highly stable organic light-emitting diodes. Thin Solid Films, 2012, 520, 7157-7163.	1.8	24
45	Controlling charge balance using non-conjugated polymer interlayer in quantum dot light-emitting diodes. Organic Electronics, 2017, 50, 82-86.	2.6	22
46	Closely Packed Polypyrroles via Ionic Cross-Linking: Correlation of Molecular Structureâ€"Morphologyâ€"Thermoelectric Properties. ACS Applied Materials & Interfaces, 2020, 12, 1110-1119.	8.0	21
47	Inkjet-Printed Silver Gate Electrode and Organic Dielectric Materials for Bottom-Gate Pentacene Thin-Film Transistors. Journal of the Korean Physical Society, 2009, 54, 518-522.	0.7	20
48	New alkylthio-thieno[3,2-b]thiophene-substituted benzodithiophene-based highly efficient photovoltaic polymer. Journal of Materials Chemistry C, 2015, 3, 4250-4253.	5.5	19
49	Structural and Morphological Evolution for Water-resistant Organic Thermoelectrics. Scientific Reports, 2017, 7, 13287.	3.3	18
50	Sunlike White Quantum Dot Lightâ€Emitting Diodes with High Color Rendition Quality. Advanced Optical Materials, 2020, 8, 2001051.	7.3	16
51	Improved electron injection in all-solution-processed n-type organic field-effect transistors with an inkjet-printed ZnO electron injection layer. Applied Surface Science, 2017, 420, 100-104.	6.1	15
52	Transient Dynamics of Charges and Excitons in Quantum Dot Lightâ€Emitting Diodes. Small, 2022, 18, .	10.0	15
53	Trap-level-engineered common red layer for fabricating red, green, and blue subpixels of full-color organic light-emitting diode displays. Optics Express, 2015, 23, 11424.	3.4	14
54	Simultaneous improvement of performance and stability in PEDOT:PSSâ€"sorbitol composite based flexible thermoelectric modules by novel design and fabrication process. Macromolecular Research, 2018, 26, 61-65.	2.4	14

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55	Enhanced efficiency and high temperature stability of hybrid quantum dot light-emitting diodes using molybdenum oxide doped hole transport layer. RSC Advances, 2019, 9, 16252-16257.	3.6	14
56	Thermally curable organic/inorganic hybrid polymers as gate dielectrics for organic thin-film transistors. Journal of Polymer Science Part A, 2014, 52, 3260-3268.	2.3	13
57	Composite film of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) and MoO3 as an efficient hole injection layer for polymer light-emitting diodes. Organic Electronics, 2014, 15, 1083-1087.	2.6	12
58	Understanding of the aging pattern in quantum dot light-emitting diodes using low-frequency noise. Nanoscale, 2020, 12, 15888-15895.	5.6	12
59	Analysis of Annealing Process on P3HT:PCBM-Based Polymer Solar Cells Using Optical and Impedance Spectroscopy. Journal of Nanoscience and Nanotechnology, 2013, 13, 3360-3364.	0.9	11
60	Polymeric microspheres: a delivery system for osteogenic differentiation. Polymers for Advanced Technologies, 2017, 28, 1595-1609.	3.2	10
61	Highly Stable Organic Transistors on Paper Enabled by a Simple and Universal Surface Planarization Method. Advanced Materials Interfaces, 2019, 6, 1801731.	3.7	10
62	Enhanced Output Performance of All-Solution-Processed Organic Thermoelectrics: Spray Printing and Interface Engineering. ACS Applied Materials & Interfaces, 2020, 12, 26250-26257.	8.0	10
63	Mechanically and electrically durable, stretchable electronic textiles for robust wearable electronics. RSC Advances, 2021, 11, 22327-22333.	3.6	10
64	Room-temperature and solution-processed vanadium oxide buffer layer for efficient charge injection in bottom-contact organic field-effect transistors. Current Applied Physics, 2014, 14, 1809-1812.	2.4	9
65	The influence of sequential ligand exchange and elimination on the performance of P3HT:CdSe quantum dot hybrid solar cells. Nanotechnology, 2015, 26, 465401.	2.6	9
66	Origin of enhanced efficiency and stability in diblock copolymer-grafted Cd-free quantum dot-based light-emitting diodes. Journal of Materials Chemistry C, 2021, 9, 10398-10405.	5.5	9
67	Highly Efficient, Surface Ligand Modified Quantum Dot Lightâ€Emitting Diodes Driven by Typeâ€Controllable MoTe₂ Thin Film Transistors via Electron Charge Enhancer. Advanced Electronic Materials, 2021, 7, 2100535.	5.1	9
68	Quantum-dot and organic hybrid light-emitting diodes employing a blue common layer for simple fabrication of full-color displays. Nano Research, 2022, 15, 6477-6482.	10.4	8
69	Effect of Solvent on the Interfacial Crystallinity in Sequentially Processed Organic Solar Cells. Advanced Materials Interfaces, 2021, 8, 2100029.	3.7	7
70	Study on graphene oxide as a hole extraction layer for stable organic solar cells. RSC Advances, 2021, 11, 27199-27206.	3.6	7
71	Thin-Films of Poly-Triarylamines for Electro-Optic Applications. Polymer Bulletin, 2008, 59, 795-803.	3.3	6
72	Efficient inverted bottom-emission blue phosphorescent organic light-emitting diodes with a ytterbium-doped electron injection layer. Journal of the Korean Physical Society, 2012, 61, 1536-1540.	0.7	6

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73	Thermally curable polymers consisting of alcohol-functionalized cyclotetrasiloxane and melamine derivatives for use as insulators in OTFTs. Organic Electronics, 2014, 15, 3666-3673.	2.6	6
74	Direct Observation of Crystal Engineering in Perovskite Solar Cells in a Moisture-Free Environment Using Conductive Atomic Force Microscopy and Friction Force Microscopy. Journal of Physical Chemistry C, 2020, 124, 4946-4952.	3.1	6
75	Enhanced Performance of SubPC/C₆₀ Solar Cells by Annealing and Modifying Surface Morphology. Journal of Nanoscience and Nanotechnology, 2012, 12, 5724-5727.	0.9	5
76	Organic thin-film transistors using photocurable acryl-fuctionalized polyhedral oligomeric silsesquioxanes as gate dielectrics. Synthetic Metals, 2012, 162, 1798-1803.	3.9	5
77	46.1: <i>Invited Paper</i>: Recent Progress of Lightâ€Emitting Diodes Based on Colloidal Quantum Dots. Digest of Technical Papers SID International Symposium, 2015, 46, 685-687.	0.3	5
78	Inverted quantum dot light-emitting diodes with defect-passivated ZnO as an electron transport layer. Semiconductor Science and Technology, 2019, 34, 085002.	2.0	5
79	Highly Efficient Blue Fluorescent Organic Light-Emitting Diodes by Engineering Hole-Transporting/Exciton-Blocking Layer. ECS Solid State Letters, 2014, 4, R5-R9.	1.4	4
80	Vapor-phase-processed fluorinated self-assembled monolayer for organic thin-film transistors. Journal of the Korean Physical Society, 2015, 67, 941-945.	0.7	4
81	Photo-cleavable perfluoroalkylated copolymers for tailoring quantum dot thin films. Polymer Chemistry, 2020, 11, 6624-6631.	3.9	4
82	38.4: Fullâ€Color Patterning of Quantum Dot (QD) Lightâ€Emitting Diodes using QD Transplanting Techniques. Digest of Technical Papers SID International Symposium, 2011, 42, 526-528.	0.3	3
83	P.119: Highâ€Performance Polymer Lightâ€Emitting Diodes with a Conjugated Polyelectrolyte. Digest of Technical Papers SID International Symposium, 2013, 44, 1431-1433.	0.3	3
84	Origin of the Mixing Ratio Dependence of Power Conversion Efficiency in Bulk Heterojunction Organic Solar Cells with Low Donor Concentration. Journal of Nanoscience and Nanotechnology, 2013, 13, 7982-7987.	0.9	3
85	Enhanced Humid Reliability of Organic Thermoelectrics via Crosslinking with Glycerol. Nanomaterials, 2019, 9, 1591.	4.1	3
86	Stoichiometric Doping of Highly Coupled Cu_{2â€“<i>x</i>}S Nanocrystal Assemblies. ACS Applied Materials & Interfaces, 2021, 13, 26330-26338.	8.0	3
87	Synthesis of UV/blue light-emitting aluminum hydroxide with oxygen vacancy and their application to electrically driven light-emitting diodes. RSC Advances, 2022, 12, 4322-4328.	3.6	3
88	Pâ€153: Colorâ€Saturated LEDs Based on Colloidal Quantumâ€Dot by Improving Charge Injection and Transport Layers. Digest of Technical Papers SID International Symposium, 2010, 41, 1824-1826.	0.3	2
89	Fast and low-temperature sintering of silver complex using oximes as a potential reducing agent for solution-processible, highly conductive electrodes. Nanotechnology, 2014, 25, 465706.	2.6	2
90	Thermoset polymers consisting of novolac and melamine derivatives as insulators for organic thin-film transistors. Journal of Materials Chemistry C, 2015, 3, 3623-3628.	5.5	2

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91	Effect of Solâ€“Gel-Derived ZnO Interfacial Layer on the Photovoltaic Properties of Polymer Solar Cells. Japanese Journal of Applied Physics, 2012, 51, 10NE29.	1.5	2
92	Effect of the plasmaâ€assisted patterning of the organic layers on the performance of organic lightâ€emitting diodes. Journal of Information Display, 2009, 10, 111-116.	4.0	1
93	Improvement of efficiency in inverted bottom-emission white OLEDs by doping the hole transport layer. , 2011, , .		1
94	Organic complementary inverter and ring oscillator on a flexible substrate. Journal of Information Display, 2011, 12, 1-4.	4.0	1
95	Effect of Solâ€“Gel-Derived ZnO Interfacial Layer on the Photovoltaic Properties of Polymer Solar Cells. Japanese Journal of Applied Physics, 2012, 51, 10NE29.	1.5	1
96	Enhanced Lifetime of Organic Light-Emitting Diodes Using an Anthracene Derivative with High Glass Transition Temperature. Journal of Nanoscience and Nanotechnology, 2013, 13, 4216-4222.	0.9	1
97	Pâ€86: Improved Performance of Quantum Dot Light Emitting Diodes by Using Charge Blocking Layer. Digest of Technical Papers SID International Symposium, 2014, 45, 1309-1311.	0.3	1
98	Improvement in the efficiency of organic solar cells using a low-temperature evaporable optical spacer. Japanese Journal of Applied Physics, 2014, 53, 08NJ04.	1.5	1
99	Photovoltaic characterizing method of degradation of polymer light-emitting diodes based on ideality factor and density of states. Applied Physics Letters, 2021, 119, .	3.3	1
100	Analysis of the effect of solvents on the performance of solution-processed organic light-emitting diodes based on Fourier-transform infrared spectroscopy. Organic Electronics, 2021, 97, 106264.	2.6	1
101	Fluorescent white OLEDs with a high colorâ€rendering index using a siliconâ€cored anthracene derivative as a blue host. Journal of Information Display, 2010, 11, 123-127.	4.0	0
102	Pâ€160: Highly Efficient Inverted Bottomâ€Emission OLEDs with ZnO Nanoparticles as an Electronâ€Injection Layer. Digest of Technical Papers SID International Symposium, 2010, 41, 1849-1852.	0.3	0
103	Pâ€21: nâ€type Organic Thin Film Transistors with High Operational Stability. Digest of Technical Papers SID International Symposium, 2014, 45, 1021-1023.	0.3	0
104	Pâ€114: Green Quantum Dot Lightâ€Emitting Diodes with High Color Purity and Their Efficiency Improvement. Digest of Technical Papers SID International Symposium, 2018, 49, 1640-1642.	0.3	0
105	20.3: Invited Paper: Organicâ€“Quantum Dot Hybrid Lightâ€Emitting Diodes and Inkjetâ€printed Quantum Dot Pixels for Fullâ€color Displays. Digest of Technical Papers SID International Symposium, 2021, 52, 276-276.	0.3	0