Swee Tiam Tan

List of Publications by Year
in descending order

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120	5,436	81743	85405
papers	citations	39 h-index	71 g-index

120	120	120	7181
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Blueshift of optical band gap in ZnO thin films grown by metal-organic chemical-vapor deposition. Journal of Applied Physics, 2005, 98, 013505.	1.1	638
2	Full Visible Range Covering InP/ZnS Nanocrystals with High Photometric Performance and Their Application to White Quantum Dot Lightâ€Emitting Diodes. Advanced Materials, 2012, 24, 4180-4185.	11.1	283
3	Highly Efficient Visible Colloidal Lead-Halide Perovskite Nanocrystal Light-Emitting Diodes. Nano Letters, 2018, 18, 3157-3164.	4.5	199
4	Growth mechanism of tubular ZnO formed in aqueous solution. Nanotechnology, 2006, 17, 1740-1744.	1.3	177
5	An inverted organic solar cell with an ultrathin Ca electron-transporting layer and MoO3 hole-transporting layer. Applied Physics Letters, 2009, 95, .	1.5	164
6	Solution-processed highly bright and durable cesium lead halide perovskite light-emitting diodes. Nanoscale, 2016, 8, 18021-18026.	2.8	160
7	Advances in the LED Materials and Architectures for Energy-Saving Solid-State Lighting Toward â€œLighting Revolutionâ€• IEEE Photonics Journal, 2012, 4, 613-619.	1.0	145
8	p -type conduction in unintentional carbon-doped ZnO thin films. Applied Physics Letters, 2007, 91, .	1.5	143
9	Highly Flexible, Electrically Driven, Top-Emitting, Quantum Dot Light-Emitting Stickers. ACS Nano, 2014, 8, 8224-8231.	7.3	135
10	High brightness formamidinium lead bromide perovskite nanocrystal light emitting devices. Scientific Reports, 2016, 6, 36733.	1.6	134
11	Optimization of an inverted organic solar cell. Solar Energy Materials and Solar Cells, 2010, 94, 985-991.	3.0	107
12	Solution Processed Tungsten Oxide Interfacial Layer for Efficient Holeâ€Injection in Quantum Dot Lightâ€Emitting Diodes. Small, 2014, 10, 247-252.	5.2	96
13	Ultraviolet emission from a ZnO rod homojunction light-emitting diode. Applied Physics Letters, 2009, 95, .	1.5	91
14	InGaN/GaN light-emitting diode with a polarization tunnel junction. Applied Physics Letters, 2013, 102, .	1.5	89
15	A p-n homojunction ZnO nanorod light-emitting diode formed by As ion implantation. Applied Physics Letters, 2008, 93, .	1.5	88
16	Ultraviolet and visible electroluminescence from n-ZnOâˆ•SiOxâˆ•(n,p)-Si heterostructured light-emitting diodes. Applied Physics Letters, 2008, 93, .	1.5	88
17	Properties of polycrystalline ZnO thin films by metal organic chemical vapor deposition. Journal of Crystal Growth, 2005, 281, 571-576.	0.7	87
18	Graphene-based transparent conductive electrodes for GaN-based light emitting diodes: Challenges and countermeasures. Nano Energy, 2015, 12, 419-436.	8.2	86

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19	Light Generation in Lead Halide Perovskite Nanocrystals: LEDs, Color Converters, Lasers, and Other Applications. Small, 2019, 15, e1902079.	5.2	81
20	Band parameters and electronic structures of wurtzite ZnO and ZnOâˆ•MgZnO quantum wells. Journal of Applied Physics, 2006, 99, 013702.	1.1	74
21	Light Extraction Efficiency Enhancement of Colloidal Quantum Dot Lightâ€Emitting Diodes Using Largeâ€Scale Nanopillar Arrays. Advanced Functional Materials, 2014, 24, 5977-5984.	7.8	68
22	Stable, Efficient, and All-Solution-Processed Quantum Dot Light-Emitting Diodes with Double-Sided Metal Oxide Nanoparticle Charge Transport Layers. ACS Applied Materials & Interfaces, 2014, 6, 495-499.	4.0	66
23	A bright cadmium-free, hybrid organic/quantum dot white light-emitting diode. Applied Physics Letters, 2012, 101, .	1.5	64
24	Self-screening of the quantum confined Stark effect by the polarization induced bulk charges in the quantum barriers. Applied Physics Letters, 2014, 104, .	1.5	63
25	Electroluminescence from a n-ZnO nanorod/p-CuAlO2 heterojunction light-emitting diode. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 635-639.	1.3	59
26	Dependence of the properties of hydrothermally grown ZnO on precursor concentration. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1423-1426.	1.3	59
27	Cluster coarsening in zinc oxide thin films by postgrowth annealing. Journal of Applied Physics, 2006, 100, 033502.	1.1	57
28	Optimization of inverted tandem organic solar cells. Solar Energy Materials and Solar Cells, 2011, 95, 921-926.	3.0	52
29	On the Effect of Step-Doped Quantum Barriers in InGaN/GaN Light Emitting Diodes. Journal of Display Technology, 2013, 9, 226-233.	1.3	47
30	Improved InGaN/GaN light-emitting diodes with a p-GaN/n-GaN/p-GaN/n-GaN/p-GaN current-spreading layer. Optics Express, 2013, 21, 4958.	1.7	47
31	A SnO₂ Nanoparticle/Nanobelt and Si Heterojunction Light-Emitting Diode. Journal of Physical Chemistry C, 2010, 114, 18390-18395.	1.5	46
32	Efficient Bulk Heterojunction Solar Cells with Poly[2,7-(9,9-dihexylfluorene)-alt-bithiophene] and 6,6-Phenyl C61 Butyric Acid Methyl Ester Blends and Their Application in Tandem Cells. ACS Applied Materials & Interfaces, 2010, 2, 829-837.	4.0	45
33	Effects of thermal annealing temperature and duration on hydrothermally grown ZnO nanorod arrays. Applied Surface Science, 2009, 255, 5861-5865.	3.1	43
34	Europium (II)-Doped Microporous Zeolite Derivatives with Enhanced Photoluminescence by Isolating Active Luminescence Centers. ACS Applied Materials & Interfaces, 2011, 3, 4431-4436.	4.0	43
35	Quantum Dot Light-Emitting Diode with Quantum Dots Inside the Hole Transporting Layers. ACS Applied Materials & Interfaces, 2013, 5, 6535-6540.	4.0	42
36	High-efficiency and low-loss gallium nitride dielectric metasurfaces for nanophotonics at visible wavelengths. Applied Physics Letters, 2017, 111, .	1.5	42

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37	Zinc oxide quantum dots embedded films by metal organic chemical vapor deposition. Journal of Crystal Growth, 2006, 290, 518-522.	0.7	41
38	Epitaxially grown n-ZnOâˆ•MgOâˆ•TiNâˆ•n+-Si(111) heterostructured light-emitting diode. Applied Physics Letters, 2008, 92, .	1.5	41
39	Improved hole distribution in InGaN/GaN light-emitting diodes with graded thickness quantum barriers. Applied Physics Letters, 2013, 102, .	1.5	41
40	Color tunable light-emitting diodes based on p+-Si/p-CuAlO2/n-ZnO nanorod array heterojunctions. Applied Physics Letters, 2010, 97, 013101.	1.5	40
41	Effects of annealing temperature of buffer layer on structural and optical properties of ZnO thin film grown by atomic layer deposition. Solid State Communications, 2008, 148, 395-398.	0.9	39
42	Green electroluminescence from an n-ZnO: Er/p-Si heterostructured light-emitting diode. Physica B: Condensed Matter, 2012, 407, 2721-2724.	1.3	38
43	Improving hole injection efficiency by manipulating the hole transport mechanism through p-type electron blocking layer engineering. Optics Letters, 2014, 39, 2483.	1.7	38
44	Optical properties of nanocluster-assembled ZnO thin films by nanocluster-beam deposition. Applied Physics Letters, 2005, 87, 251912.	1.5	37
45	Growth and spectral analysis of ZnO nanotubes. Journal of Applied Physics, 2008, 103, 094303.	1.1	37
46	AC-driven, color- and brightness-tunable organic light-emitting diodes constructed from an electron only device. Organic Electronics, 2013, 14, 3195-3200.	1.4	36
47	Advantages of the Blue InGaN/GaN Light-Emitting Diodes with an AlGaN/GaN/AlGaN Quantum Well Structured Electron Blocking Layer. ACS Photonics, 2014, 1, 377-381.	3.2	35
48	Enhanced hole transport in InGaN/GaN multiple quantum well light-emitting diodes with a p-type doped quantum barrier. Optics Letters, 2013, 38, 202.	1.7	34
49	On the origin of the redshift in the emission wavelength of InGaN/GaN blue light emitting diodes grown with a higher temperature interlayer. Applied Physics Letters, 2012, 100, .	1.5	33
50	A hole accelerator for InGaN/GaN light-emitting diodes. Applied Physics Letters, 2014, 105, .	1.5	33
51	Electronic structures of wurtzite ZnO and ZnO/MgZnO quantum well. Journal of Crystal Growth, 2006, 287, 28-33.	0.7	32
52	Improved Inverted Organic Solar Cells With a Solâ€“Gel Derived Indium-Doped Zinc Oxide Buffer Layer. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1700-1706.	1.9	32
53	Facile Synthesis of Luminescent AgInS₂â€“ZnS Solid Solution Nanorods. Small, 2013, 9, 2689-2695.	5.2	32
54	Bandgap-Engineered Ga-Rich GaZnO Thin Films for UV Transparent Electronics. IEEE Transactions on Electron Devices, 2009, 56, 2995-2999.	1.6	31

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55	Polarization self-screening in [0001] oriented InGaN/GaN light-emitting diodes for improving the electron injection efficiency. Applied Physics Letters, 2014, 104, .	1.5	31
56	Ion-dependent electroluminescence from trivalent rare-earth doped n-ZnO/p-Si heterostructured light-emitting diodes. Materials Science in Semiconductor Processing, 2015, 30, 263-266.	1.9	31
57	Enhancement of UV photoluminescence in ZnO tubes grown by metal organic chemical vapour deposition (MOCVD). Vacuum, 2018, 155, 408-411.	1.6	31
58	Effects of the annealing duration of the ZnO buffer layer on structural and optical properties of ZnO rods grown by a hydrothermal process. Applied Surface Science, 2009, 255, 8501-8505.	3.1	30
59	Transition metal oxides on organic semiconductors. Organic Electronics, 2014, 15, 871-877.	1.4	30
60	Highly stable and high power efficiency tandem organic light-emitting diodes with transition metal oxide-based charge generation layers. Organic Electronics, 2015, 23, 70-75.	1.4	30
61	Manganese-doped zinc oxide tetratubes and their photoluminescent properties. Journal of Applied Physics, 2005, 98, 113513.	1.1	29
62	Effects of buffer layer annealing temperature on the structural and optical properties of hydrothermal grown ZnO. Applied Surface Science, 2009, 255, 4461-4465.	3.1	29
63	On the mechanisms of InGaN electron cooler in InGaN/GaN light-emitting diodes. Optics Express, 2014, 22, A779.	1.7	29
64	Comparative study of field-dependent carrier dynamics and emission kinetics of InGaN/GaN light-emitting diodes grown on (112Â¯2) semipolar versus (0001) polar planes. Applied Physics Letters, 2014, 104, .	1.5	29
65	InGaN/GaN multiple-quantum-well light-emitting diodes with a grading InN composition suppressing the Auger recombination. Applied Physics Letters, 2014, 105, .	1.5	29
66	Realization of n-Zn1â^'xMgxOâ^•i-ZnOâ^•SiOxâ^•n+-Si heterostructured n-i-n light-emitting diodes by low-cost ultrasonic spray pyrolysis. Applied Physics Letters, 2007, 91, 263501.	1.5	28
67	On the origin of the electron blocking effect by an n-type AlGaN electron blocking layer. Applied Physics Letters, 2014, 104, .	1.5	28
68	p-doping-free InGaN/GaN light-emitting diode driven by three-dimensional hole gas. Applied Physics Letters, 2013, 103, .	1.5	27
69	Realization of intrinsic p-type ZnO thin films by metal organic chemical vapor deposition. Journal of Electronic Materials, 2005, 34, 1172-1176.	1.0	25
70	Nonradiative recombination â€" critical in choosing quantum well number for InGaN/GaN light-emitting diodes. Optics Express, 2015, 23, A34.	1.7	25
71	Observation of polarized gain from aligned colloidal nanorods. Nanoscale, 2015, 7, 6481-6486.	2.8	24
72	Epitaxial growth and luminescence properties of ZnO-based heterojunction light-emitting diode on Si(1â€‰1â€‰1) substrate by pulsed-laser deposition. Journal Physics D: Applied Physics, 2008, 41, 205105.	1.3	23

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73	Nanoscale band gap spectroscopy on ZnO and GaN-based compounds with a monochromated electron microscope. Applied Physics Letters, 2009, 95, .	1.5	23
74	Influence of n-type versus p-type AlGaN electron-blocking layer on InGaN/GaN multiple quantum wells light-emitting diodes. Applied Physics Letters, 2013, 103, .	1.5	23
75	UV and Visible Electroluminescence From a $ hbox{Sn:Ga}_{2}hbox{O}_{3}/hbox{n}^{+}hbox{-Si}$ Heterojunction by Metalâ€“Organic Chemical Vapor Deposition. IEEE Transactions on Electron Devices, 2011, 58, 1447-1451.	1.6	22
76	Surfactant effect of arsenic doping on modification of ZnO (0001) growth kinetics. Applied Physics Letters, 2009, 95, 101905.	1.5	21
77	A hole modulator for InGaN/GaN light-emitting diodes. Applied Physics Letters, 2015, 106, .	1.5	19
78	PN-type quantum barrier for InGaN/GaN light emitting diodes. Optics Express, 2013, 21, 15676.	1.7	18
79	An efficient non-Lambertian organic light-emitting diode using imprinted submicron-size zinc oxide pillar arrays. Applied Physics Letters, 2013, 102, .	1.5	18
80	Blue to deep UV light emission from a p-Si/AlN/Au heterostructure. Applied Physics Letters, 2009, 94, 093506.	1.5	17
81	On the triplet distribution and its effect on an improved phosphorescent organic light-emitting diode. Applied Physics Letters, 2012, 101, 093301.	1.5	16
82	Low thermal-mass LEDs: size effect and limits. Optics Express, 2014, 22, 32200.	1.7	16
83	Investigation of p-type depletion doping for InGaN/GaN-based light-emitting diodes. Applied Physics Letters, 2017, 110, .	1.5	15
84	Electroluminescence From Ferromagnetic Fe-Doped ZnO Nanorod Arrays on p-Si. IEEE Transactions on Electron Devices, 2010, 57, 1948-1952.	1.6	14
85	Simultaneous enhancement of electron overflow reduction and hole injection promotion by tailoring the last quantum barrier in InGaN/GaN light-emitting diodes. Applied Physics Letters, 2014, 104, .	1.5	14
86	$nhbox{-ZnO}/nhbox{-GaAs}$ Heterostructured White Light-Emitting Diode: Nanoscale Interface Analysis and Electroluminescence Studies. IEEE Transactions on Electron Devices, 2010, 57, 129-133.	1.6	13
87	Spatial distribution of defect in ZnO nanodisks. Current Applied Physics, 2009, 9, 573-576.	1.1	12
88	Terahertz dielectric response and optical conductivity of n-type single-crystal ZnO epilayers grown by metalorganic chemical vapor deposition. Journal of Applied Physics, 2010, 107, 033101.	1.1	12
89	Onâ€Chip Mercuryâ€Free Deepâ€UV Lightâ€Emitting Sources with Ultrahigh Germicidal Efficiency. Advanced Optical Materials, 2021, 9, 2100072.	3.6	10
90	Fabrication and field emission properties of regular hexagonal flowerlike ZnO nanowhiskers. Journal of Vacuum Science & Technology B, 2007, 25, 590.	1.3	9

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91	Theoretical and experimental depth-resolved cathodoluminescence microanalysis of excitonic emission from ZnO epilayers. Applied Physics Letters, 2008, 92, .	1.5	9
92	Improved performance of InGaN/GaN flip-chip light-emitting diodes through the use of robust Ni/Ag/TiW mirror contacts. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, 011209.	0.6	8
93	Critical role of CdSe nanoplatelets in color-converting CdSe/ZnS nanocrystals for InGaN/GaN light-emitting diodes. Optics Letters, 2016, 41, 2883.	1.7	8
94	High-Performance Triangular Miniaturized-LEDs for High Current and Power Density Applications. ACS Photonics, 2021, 8, 2304-2310.	3.2	7
95	On the effect of N-GaN/P-GaN/N-GaN/P-GaN/N-GaN built-in junctions in the n-GaN layer for InGaN/GaN light-emitting diodes. Optics Express, 2014, 22, 809.	1.7	6
96	Decoupling contact and mirror: an effective way to improve the reflector for flip-chip InGaN/GaN-based light-emitting diodes. Journal Physics D: Applied Physics, 2016, 49, 265106.	1.3	6
97	Self assembled ZnO hollow spheres and hexagonal stacking disks by metal-organic chemical-vapour deposition. International Journal of Nanotechnology, 2007, 4, 691.	0.1	5
98	Room-temperature larger-scale highly ordered nanorod imprints of ZnO film. Optics Express, 2013, 21, 26846.	1.7	5
99	Light-Emitting Diodes: Solution Processed Tungsten Oxide Interfacial Layer for Efficient Hole-Injection in Quantum Dot Light-Emitting Diodes (Small 2/2014). Small, 2014, 10, 246-246.	5.2	4
100	Strain-Reduced Micro-LEDs Grown Directly Using Partitioned Growth. Frontiers in Chemistry, 2021, 9, 639023.	1.8	4
101	Improved InGaN/GaN light-emitting diodes with a p-GaN/n-GaN/p-GaN/n-GaN/p-GaN current-spreading layer: errata. Optics Express, 2013, 21, 17670.	1.7	3
102	An improved polymer solar cell incorporating single-wall carbon nanotubes. Journal of Modern Optics, 2014, 61, 1761-1766.	0.6	3
103	Effect of Buffer Layer Annealing on ZnO Thin Films Grown by using Atomic Layer Deposition. Journal of the Korean Physical Society, 2009, 55, 2556-2559.	0.3	3
104	Engineered ultraviolet InGaN/AlGaN multiple-quantum-well structures for maximizing cathodoluminescence efficiency. AIP Advances, 2022, 12, .	0.6	2
105	High-quality InP/ZnS nanocrystals with high photometric performance and their application to white quantum dot light-emitting diodes. , 2012, , .		1
106	Highly flexible, full-color, top-emitting quantum dot light-emitting diode tapes. , 2013, , .		1
107	Low-cost, large-scale, ordered ZnO nanopillar arrays for light extraction efficiency enhancement in quantum dot light-emitting diodes. , 2014, , .		1
108	An Optically Readable InGaN/GaN RRAM. IEEE Transactions on Electron Devices, 2016, 63, 2328-2333.	1.6	1

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109	Editorial: Advanced Nanomaterials for Light-Emitting Diodes and Solar Cells. Frontiers in Chemistry, 2021, 9, 741760.	1.8	1
110	Two-dimensional Photonic Crystal Patterns for Vertical Light Extraction Enhancement from Ultra-thin Amorphous Si/Si<inf>3</inf>N<inf>4</inf> Multilayer stack. , 2008, , .		0
111	Pâ€127: A ZnO Based Heterostructured nâ€iâ€n Lightâ€Emitting Diode by Lowâ€Cost Ultrasonic Spray Pyrolysis. Digest of Technical Papers SID International Symposium, 2008, 39, 1670-1673.	0.1	0
112	An Improved Triple-Tandem Organic Solar Cell. Materials Research Society Symposia Proceedings, 2009, 1212, 1.	0.1	0
113	Effects of growth temperature on crystal structure, electrical, and photoluminescence of ZnO thin films. , 2013, , .		0
114	Tandem InGaN/GaN light-emitting diodes. , 2015, , .		0
115	Modulating Ohmic Contact Through InGa_xN_yO_zInterfacial Layer for High-Performance InGaN/GaN-Based Light-Emitting Diodes. IEEE Photonics Journal, 2016, 8, 1-8.	1.0	0
116	Effect of Mg doping in the barriers on the electrical performance of InGaN/GaN-based light-emitting diodes. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 98, 29-32.	1.3	0
117	High-efficiency and low-loss dielectric metasurfaces on a gallium nitride platform. , 2018, , .		0
118	Nanocrystal optoelectronics for quality lighting and displays (ID: 1780136). , 2013, , .		0
119	Controlling LED radiation with dielectric metasurfaces (Conference Presentation). , 2019, , .		0
120	Nonradiative recombination â€" critical in choosing quantum well number for InGaN/GaN light-emitting diodes. Optics Express, 2015, 23, A31.	1.7	0