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	Engineered ultraviolet InGaN/AlGaN multiple-quantum-well structures for maximizing cathodoluminescence efficiency. AIP Advances, 2022, 12, .	0.6	2
2	Strain-Reduced Micro-LEDs Grown Directly Using Partitioned Growth. Frontiers in Chemistry, 2021, 9, 639023.	1.8	4
3	Onâ€Chip Mercuryâ€Free Deepâ€UV Lightâ€Emitting Sources with Ultrahigh Germicidal Efficiency. Advanced Optical Materials, 2021, 9, 2100072.	3.6	10
4	High-Performance Triangular Miniaturized-LEDs for High Current and Power Density Applications. ACS Photonics, 2021, 8, 2304-2310.	3.2	7
5	Editorial: Advanced Nanomaterials for Light-Emitting Diodes and Solar Cells. Frontiers in Chemistry, 2021, 9, 741760.	1.8	1
6	Light Generation in Lead Halide Perovskite Nanocrystals: LEDs, Color Converters, Lasers, and Other Applications. Small, 2019, 15, e1902079.	5.2	81
7	Controlling LED radiation with dielectric metasurfaces (Conference Presentation). , 2019, , .		0
8	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
9	Highly Efficient Visible Colloidal Lead-Halide Perovskite Nanocrystal Light-Emitting Diodes. Nano Letters, 2018, 18, 3157-3164.	4.5	199
10	Enhancement of UV photoluminescence in ZnO tubes grown by metal organic chemical vapour deposition (MOCVD). Vacuum, 2018, 155, 408-411.	1.6	31
11	High-efficiency and low-loss dielectric metasurfaces on a gallium nitride platform. , 2018, , .		0
12	Investigation of p-type depletion doping for InGaN/GaN-based light-emitting diodes. Applied Physics Letters, 2017, 110, .	1.5	15
13	High-efficiency and low-loss gallium nitride dielectric metasurfaces for nanophotonics at visible wavelengths. Applied Physics Letters, 2017, 111, .	1.5	42
14	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
15	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
16	Solution-processed highly bright and durable cesium lead halide perovskite light-emitting diodes. Nanoscale, 2016, 8, 18021-18026.	2.8	160
17	High brightness formamidinium lead bromide perovskite nanocrystal light emitting devices. Scientific Reports, 2016, 6, 36733.	1.6	134
18	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

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19	An Optically Readable InGaN/GaN RRAM. IEEE Transactions on Electron Devices, 2016, 63, 2328-2333.	1.6	1
20	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
21	Tandem InGaN/GaN light-emitting diodes. , 2015, , .		0
22	Graphene-based transparent conductive electrodes for GaN-based light emitting diodes: Challenges and countermeasures. Nano Energy, 2015, 12, 419-436.	8.2	86
23	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
24	Observation of polarized gain from aligned colloidal nanorods. Nanoscale, 2015, 7, 6481-6486.	2.8	24
25	Nonradiative recombination â€" critical in choosing quantum well number for InGaN/GaN light-emitting diodes. Optics Express, 2015, 23, A34.	1.7	25
26	A hole modulator for InGaN/GaN light-emitting diodes. Applied Physics Letters, 2015, 106, .	1.5	19
27	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
28	Nonradiative recombination â€" critical in choosing quantum well number for InGaN/GaN light-emitting diodes. Optics Express, 2015, 23, A31.	1.7	0
29	Low thermal-mass LEDs: size effect and limits. Optics Express, 2014, 22, 32200.	1.7	16
30	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
31	On the mechanisms of InGaN electron cooler in InGaN/GaN light-emitting diodes. Optics Express, 2014, 22, A779.	1.7	29
32	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
33	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
34	An improved polymer solar cell incorporating single-wall carbon nanotubes. Journal of Modern Optics, 2014, 61, 1761-1766.	0.6	3
35	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
36	A hole accelerator for InGaN/GaN light-emitting diodes. Applied Physics Letters, 2014, 105, .	1.5	33

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37	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
38	Low-cost, large-scale, ordered ZnO nanopillar arrays for light extraction efficiency enhancement in quantum dot light-emitting diodes. , 2014, , .		1
39	Transition metal oxides on organic semiconductors. Organic Electronics, 2014, 15, 871-877.	1.4	30
40	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
41	Solution Processed Tungsten Oxide Interfacial Layer for Efficient Holeâ€Injection in Quantum Dot Lightâ€Emitting Diodes. Small, 2014, 10, 247-252.	5.2	96
42	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
43	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
44	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
45	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
46	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
47	Highly Flexible, Electrically Driven, Top-Emitting, Quantum Dot Light-Emitting Stickers. ACS Nano, 2014, 8, 8224-8231.	7.3	135
48	On the origin of the electron blocking effect by an n-type AlGaN electron blocking layer. Applied Physics Letters, 2014, 104, .	1.5	28
49	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
50	Quantum Dot Light-Emitting Diode with Quantum Dots Inside the Hole Transporting Layers. ACS Applied Materials & Interfaces, 2013, 5, 6535-6540.	4.0	42
51	p-doping-free InGaN/GaN light-emitting diode driven by three-dimensional hole gas. Applied Physics Letters, 2013, 103, .	1.5	27
52	Effects of growth temperature on crystal structure, electrical, and photoluminescence of ZnO thin films. , 2013, , .		0
53	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
54	Facile Synthesis of Luminescent AgInS₂â€“ZnS Solid Solution Nanorods. Small, 2013, 9, 2689-2695.	5.2	32

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55	InGaN/GaN light-emitting diode with a polarization tunnel junction. Applied Physics Letters, 2013, 102, .	1.5	89
56	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
57	PN-type quantum barrier for InGaN/GaN light emitting diodes. Optics Express, 2013, 21, 15676.	1.7	18
58	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
59	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
60	Room-temperature larger-scale highly ordered nanorod imprints of ZnO film. Optics Express, 2013, 21, 26846.	1.7	5
61	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
62	An efficient non-Lambertian organic light-emitting diode using imprinted submicron-size zinc oxide pillar arrays. Applied Physics Letters, 2013, 102, .	1.5	18
63	Improved hole distribution in InGaN/GaN light-emitting diodes with graded thickness quantum barriers. Applied Physics Letters, 2013, 102, .	1.5	41
64	Highly flexible, full-color, top-emitting quantum dot light-emitting diode tapes. , 2013, , .		1
65	Nanocrystal optoelectronics for quality lighting and displays (ID: 1780136). , 2013, , .		0
66	High-quality InP/ZnS nanocrystals with high photometric performance and their application to white quantum dot light-emitting diodes. , 2012, , .		1
67	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
68	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
69	A bright cadmium-free, hybrid organic/quantum dot white light-emitting diode. Applied Physics Letters, 2012, 101, .	1.5	64
70	On the triplet distribution and its effect on an improved phosphorescent organic light-emitting diode. Applied Physics Letters, 2012, 101, 093301.	1.5	16
71	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
72	Green electroluminescence from an n-ZnO: Er/p-Si heterostructured light-emitting diode. Physica B: Condensed Matter, 2012, 407, 2721-2724.	1.3	38

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73	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
74	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
75	Optimization of inverted tandem organic solar cells. Solar Energy Materials and Solar Cells, 2011, 95, 921-926.	3.0	52
76	Optimization of an inverted organic solar cell. Solar Energy Materials and Solar Cells, 2010, 94, 985-991.	3.0	107
77	$nhbox{-ZnO}/nhbox{-GaAs}$ Heterostructured White Light-Emitting Diode: Nanoscale Interface Analysis and Electroluminescence Studies. IEEE Transactions on Electron Devices, 2010, 57, 129-133.	1.6	13
78	Electroluminescence From Ferromagnetic Fe-Doped ZnO Nanorod Arrays on p-Si. IEEE Transactions on Electron Devices, 2010, 57, 1948-1952.	1.6	14
79	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
80	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
81	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
82	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
83	A SnO₂ Nanoparticle/Nanobelt and Si Heterojunction Light-Emitting Diode. Journal of Physical Chemistry C, 2010, 114, 18390-18395.	1.5	46
84	Ultraviolet emission from a ZnO rod homojunction light-emitting diode. Applied Physics Letters, 2009, 95, .	1.5	91
85	Surfactant effect of arsenic doping on modification of ZnO (0001) growth kinetics. Applied Physics Letters, 2009, 95, 101905.	1.5	21
86	An Improved Triple-Tandem Organic Solar Cell. Materials Research Society Symposia Proceedings, 2009, 1212, 1.	0.1	0
87	Bandgap-Engineered Ga-Rich GaZnO Thin Films for UV Transparent Electronics. IEEE Transactions on Electron Devices, 2009, 56, 2995-2999.	1.6	31
88	Spatial distribution of defect in ZnO nanodisks. Current Applied Physics, 2009, 9, 573-576.	1.1	12
89	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
90	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

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91	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
92	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
93	Effects of thermal annealing temperature and duration on hydrothermally grown ZnO nanorod arrays. Applied Surface Science, 2009, 255, 5861-5865.	3.1	43
94	Blue to deep UV light emission from a p-Si/AlN/Au heterostructure. Applied Physics Letters, 2009, 94, 093506.	1.5	17
95	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
96	Nanoscale band gap spectroscopy on ZnO and GaN-based compounds with a monochromated electron microscope. Applied Physics Letters, 2009, 95, .	1.5	23
97	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
98	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
99	Growth and spectral analysis of ZnO nanotubes. Journal of Applied Physics, 2008, 103, 094303.	1.1	37
100	A p-n homojunction ZnO nanorod light-emitting diode formed by As ion implantation. Applied Physics Letters, 2008, 93, .	1.5	88
101	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
102	Epitaxially grown n-ZnOâˆ•MgOâˆ•TiNâˆ•n+-Si(111) heterostructured light-emitting diode. Applied Physics Letters, 2008, 92, .	1.5	41
103	Ultraviolet and visible electroluminescence from n-ZnOâˆ•SiOxâˆ•(n,p)-Si heterostructured light-emitting diodes. Applied Physics Letters, 2008, 93, .	1.5	88
104	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
105	Theoretical and experimental depth-resolved cathodoluminescence microanalysis of excitonic emission from ZnO epilayers. Applied Physics Letters, 2008, 92, .	1.5	9
106	Pâ€127: A ZnO Based Heterostructured nâ€in Lightâ€Emitting Diode by Lowâ€Cost Ultrasonic Spray Pyrolysis. Digest of Technical Papers SID International Symposium, 2008, 39, 1670-1673.	0.1	0
107	Fabrication and field emission properties of regular hexagonal flowerlike ZnO nanowhiskers. Journal of Vacuum Science & Technology B, 2007, 25, 590.	1.3	9
108	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

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109	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
110	p -type conduction in unintentional carbon-doped ZnO thin films. Applied Physics Letters, 2007, 91, .	1.5	143
111	Growth mechanism of tubular ZnO formed in aqueous solution. Nanotechnology, 2006, 17, 1740-1744.	1.3	177
112	Electronic structures of wurtzite ZnO and ZnO/MgZnO quantum well. Journal of Crystal Growth, 2006, 287, 28-33.	0.7	32
113	Zinc oxide quantum dots embedded films by metal organic chemical vapor deposition. Journal of Crystal Growth, 2006, 290, 518-522.	0.7	41
114	Band parameters and electronic structures of wurtzite ZnO and ZnOâ^•MgZnO quantum wells. Journal of Applied Physics, 2006, 99, 013702.	1.1	74
115	Cluster coarsening in zinc oxide thin films by postgrowth annealing. Journal of Applied Physics, 2006, 100, 033502.	1.1	57
116	Properties of polycrystalline ZnO thin films by metal organic chemical vapor deposition. Journal of Crystal Growth, 2005, 281, 571-576.	0.7	87
117	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
118	Optical properties of nanocluster-assembled ZnO thin films by nanocluster-beam deposition. Applied Physics Letters, 2005, 87, 251912.	1.5	37
119	Manganese-doped zinc oxide tetratubes and their photoluminescent properties. Journal of Applied Physics, 2005, 98, 113513.	1.1	29
120	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