Tae-Yeon Seong

List of Publications by Year
in descending order

253 papers	6,118 citations	71102 41 h-index	91884 69 g-index
256 all docs	256 docs citations	256 times ranked	4771 citing authors

#	Article	IF	Citations
1	The emergence and prospects of deep-ultraviolet light-emitting diode technologies. Nature Photonics, 2019, 13, 233-244.	31.4	800
2	Growth and characterization of hypothetical zinc-blende ZnO films on GaAs(001) substrates with ZnS buffer layers. Applied Physics Letters, 2000, 76, 550-552.	3.3	188
3	Low-resistance Pt/Ni/Au ohmic contacts to p-type GaN. Applied Physics Letters, 1999, 74, 70-72.	3.3	153
4	Ohmic-Contact Technology for GaN-Based Light-Emitting Diodes: Role of P-Type Contact. IEEE Transactions on Electron Devices, 2010, 57, 42-59.	3.0	140
5	Light output performance of red AlGaInP-based light emitting diodes with different chip geometries and structures. Optics Express, 2018, 26, 11194.	3.4	135
6	Plasma damage-free sputtering of indium tin oxide cathode layers for top-emitting organic light-emitting diodes. Applied Physics Letters, 2005, 86, 183503.	3.3	122
7	Formation of low resistance Pt ohmic contacts to p-type GaN using two-step surface treatment. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 2667.	1.6	117
8	Ohmic and degradation mechanisms of Ag contacts on p-type GaN. Applied Physics Letters, 2005, 86, 062104.	3.3	115
9	Microâ€Light Emitting Diode: From Chips to Applications. Laser and Photonics Reviews, 2021, 15, 2000133.	8.7	108
10	Fabrication of ZnO quantum dots embedded in an amorphous oxide layer. Applied Physics Letters, 2004, 84, 3810-3812.	3.3	104
11	Electrical characteristics of ZrOxNy prepared by NH3 annealing of ZrO2. Applied Physics Letters, 2001, 79, 245-247.	3.3	91
12	Highly low resistance and transparent Ni/ZnO ohmic contacts to p-type GaN. Applied Physics Letters, 2003, 83, 479-481.	3.3	89
13	Design of high-efficiency GaN-based light emitting diodes with vertical injection geometry. Applied Physics Letters, 2007, 91, .	3.3	83
14	Reviewâ€"Group III-Nitride-Based Ultraviolet Light-Emitting Diodes: Ways of Increasing External Quantum Efficiency. ECS Journal of Solid State Science and Technology, 2017, 6, Q42-Q52.	1.8	81
15	Effects of thermal and hydrogen treatment on indium segregation in InGaN/GaN multiple quantum wells. Journal of Applied Physics, 2001, 89, 6514-6518.	2.5	80
16	Electronic transport mechanisms of nonalloyed Pt Ohmic contacts to p-GaN. Applied Physics Letters, 2000, 76, 2743-2745.	3.3	71
17	Effect of a Mo back contact on Na diffusion in CIGS thin film solar cells. Progress in Photovoltaics: Research and Applications, 2013, 21, 58-63.	8.1	69
18	Mechanisms for the reduction of the Schottky barrier heights of high-quality nonalloyed Pt contacts on surface-treated p-GaN. Journal of Applied Physics, 2000, 88, 3064-3066.	2.5	68

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19	Low Resistance and Reflective Mg-Doped Indium Oxideâ€“Ag Ohmic Contacts for Flip-Chip Light-Emitting Diodes. IEEE Photonics Technology Letters, 2004, 16, 1450-1452.	2.5	65
20	Electrical characteristics of contacts to thin film N-polar n-type GaN. Applied Physics Letters, 2008, 93, .	3.3	65
21	Growth of high-quality GaN on Si(111) substrate by ultrahigh vacuum chemical vapor deposition. Applied Physics Letters, 2001, 78, 2858-2860.	3.3	64
22	Schottky barrier characteristics of Pt contacts to n-type InGaN. Journal of Applied Physics, 2006, 99, 073704.	2.5	63
23	Metallization scheme for highly low-resistance, transparent, and thermally stable Ohmic contacts to p-GaN. Applied Physics Letters, 2000, 76, 2898-2900.	3.3	61
24	Electrical properties of CIGS/Mo junctions as a function of MoSe₂ orientation and Na doping. Progress in Photovoltaics: Research and Applications, 2014, 22, 90-96.	8.1	61
25	Exploring dopant effects in stannic oxide nanoparticles for CO2 electro-reduction to formate. Nature Communications, 2022, 13, 2205.	12.8	61
26	Formation of low resistance and transparent ohmic contacts to p-type GaN using Niâ€“Mg solid solution. Applied Physics Letters, 2003, 83, 3513-3515.	3.3	59
27	The effects of film thickness on the electrical, optical, and structural properties of cylindrical, rotating, magnetron-sputtered ITO films. Applied Surface Science, 2018, 440, 1211-1218.	6.1	59
28	TiN/Al Ohmic contacts to N-face n-type GaN for high-performance vertical light-emitting diodes. Applied Physics Letters, 2009, 94, .	3.3	58
29	Flexible ITO films with atomically flat surfaces for high performance flexible perovskite solar cells. Nanoscale, 2018, 10, 20587-20598.	5.6	58
30	Improvement of the luminous intensity of light-emitting diodes by using highly transparent Ag-indium tin oxide p-type ohmic contacts. IEEE Photonics Technology Letters, 2005, 17, 291-293.	2.5	57
31	High-Reflectance and Thermally Stable AgCu Alloy p-Type Reflectors for GaN-Based Light-Emitting Diodes. IEEE Photonics Technology Letters, 2007, 19, 336-338.	2.5	57
32	Low-resistance and highly-reflective Znâ€“Ni solid solution/Ag ohmic contacts for flip-chip light-emitting diodes. Applied Physics Letters, 2003, 83, 4990-4992.	3.3	56
33	Highly transparent Agâ•SnO2 ohmic contact to p-type GaN for ultraviolet light-emitting diodes. Applied Physics Letters, 2004, 85, 6374-6376.	3.3	56
34	Improvement of the light output of InGaN-based light-emitting diodes using Cu-doped indium oxide/indium tin oxide p-type electrodes. Applied Physics Letters, 2005, 86, 213505.	3.3	56
35	Enhancement of phase separation in the InGaN layer for self-assembled In-rich quantum dots. Applied Physics Letters, 2005, 87, 061906.	3.3	55
36	Cu-doped indium oxideâ•Ag ohmic contacts for high-power flip-chip light-emitting diodes. Applied Physics Letters, 2005, 86, 062103.	3.3	52

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37	Enhancement of the light output of GaN-based ultraviolet light-emitting diodes by a one-dimensional nanopatterning process. Applied Physics Letters, 2006, 88, 103505.	3.3	52
38	Growth behavior of carbon nanotubes on Fe-deposited (001) Si substrates. Applied Physics Letters, 2001, 78, 3130-3132.	3.3	51
39	Enhancement of the light output of GaN-based light-emitting diodes with surface-patterned ITO electrodes by maskless wet-etching. Solid-State Electronics, 2007, 51, 793-796.	1.4	51
40	Co(OH)2-combined carbon-nanotube array electrodes for high-performance micro-electrochemical capacitors. Electrochemistry Communications, 2008, 10, 1284-1287.	4.7	51
41	Metallization contacts to nonpolar a-plane n-type GaN. Applied Physics Letters, 2008, 93, 032105.	3.3	47
42	Highly flexible ZnO/Ag/ZnO conducting electrode for organic photonic devices. Ceramics International, 2015, 41, 7146-7150.	4.8	42
43	Optimized ITO/Ag/ITO multilayers as a current spreading layer to enhance the light output of ultraviolet light-emitting diodes. Journal of Alloys and Compounds, 2019, 776, 960-964.	5.5	41
44	Measurements of current spreading length and design of GaN-based light emitting diodes. Applied Physics Letters, 2007, 90, 063510.	3.3	39
45	Enhanced light extraction of GaN-based light-emitting diodes by using textured n-type GaN layers. Applied Physics Letters, 2007, 90, 161110.	3.3	38
46	Wafer-level fabrication of GaN-based vertical light-emitting diodes using a multi-functional bonding material system. Semiconductor Science and Technology, 2009, 24, 092001.	2.0	38
47	Dependence of optical and electrical properties on Ag thickness in TiO2/Ag/TiO2 multilayer films for photovoltaic devices. Ceramics International, 2015, 41, 8059-8063.	4.8	37
48	Effects of sulfur passivation on Ti/Al ohmic contacts to n-type GaN using CH3CSNH2 solution. Applied Physics Letters, 2002, 80, 3129-3131.	3.3	36
49	Epitaxial growth of Cr2O3 thin film on Al2O3 (0001) substrate by radio frequency magnetron sputtering combined with rapid-thermal annealing. Thin Solid Films, 2010, 518, 4813-4816.	1.8	35
50	Al-doped ZnO/Ag/Al-doped ZnO multilayer films with a high figure of merit. Ceramics International, 2015, 41, 14805-14810.	4.8	35
51	Improving the Leakage Characteristics and Efficiency of GaN-based Micro-Light-Emitting Diode with Optimized Passivation. ECS Journal of Solid State Science and Technology, 2020, 9, 055001.	1.8	35
52	Formation of vanadium-based ohmic contacts to n-GaN. Applied Physics Letters, 2003, 83, 1154-1156.	3.3	33
53	Light-output enhancement of GaN-based light-emitting diodes by using hole-patterned transparent indium tin oxide electrodes. Journal of Applied Physics, 2005, 98, 076107.	2.5	33
54	Realization of an Artificial Visual Nervous System using an Integrated Optoelectronic Device Array. Advanced Materials, 2021, 33, e2105485.	21.0	33

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55	Consideration of the Actual Current-Spreading Length of GaN-Based Light-Emitting Diodes for High-Efficiency Design. IEEE Journal of Quantum Electronics, 2007, 43, 625-632.	1.9	32
56	Superhydrophilic Transparent Titania Films by Supersonic Aerosol Deposition. Journal of the American Ceramic Society, 2013, 96, 1596-1601.	3.8	31
57	Realization of highly transparent and low resistance TiO2/Ag/TiO2 conducting electrode for optoelectronic devices. Ceramics International, 2015, 41, 3064-3068.	4.8	31
58	Highly flexible Al-doped ZnO/Ag/Al-doped ZnO multilayer films deposited on PET substrates at room temperature. Ceramics International, 2016, 42, 3473-3478.	4.8	31
59	High-quality nonalloyed rhodium-based ohmic contacts to p-type GaN. Applied Physics Letters, 2003, 83, 2372-2374.	3.3	30
60	Low Resistance and High Reflectance Pt/Rh Contacts to p-Type GaN for GaN-Based Flip Chip Light-Emitting Diodes. Journal of the Electrochemical Society, 2005, 152, G92.	2.9	30
61	Morphology and defect structures of GaSb islands on GaAs grown by metalorganic vapor phase epitaxy. Journal of Electronic Materials, 1998, 27, 466-471.	2.2	29
62	Preparation and characterization of electro-spun RuO2â€“Ag2O composite nanowires for electrochemical capacitors. Journal of Alloys and Compounds, 2011, 509, 4336-4340.	5.5	29
63	Combined effects of V pits and chip size on the electrical and optical properties of green InGaN-based light-emitting diodes. Journal of Alloys and Compounds, 2019, 796, 146-152.	5.5	28
64	Control of the preferred orientations of Cu(In,Ga)Se₂ films and the photovoltaic conversion efficiency using a surfaceâ€functionalized molybdenum back contact. Progress in Photovoltaics: Research and Applications, 2014, 22, 69-76.	8.1	27
65	Leakage current origins and passivation effect of GaN-based light emitting diodes fabricated with Ag p-contacts. Applied Physics Letters, 2008, 92, .	3.3	26
66	Realizing the Potential of ZnO with Alternative Nonâ€Metallic Coâ€Dopants as Electrode Materials for Small Molecule Optoelectronic Devices. Advanced Functional Materials, 2013, 23, 3645-3652.	14.9	26
67	InGaN-Based Light-Emitting Diodes Grown on a Micro/Nanoscale Hybrid Patterned Sapphire Substrate. ACS Applied Materials & Interfaces, 2016, 8, 34520-34529.	8.0	25
68	Highly Transparent and Low-Resistance Indium-Free ZnO/Ag/ZnO Multilayer Electrodes for Organic Photovoltaic Devices. Journal of Electronic Materials, 2015, 44, 3967-3972.	2.2	24
69	Control of refractive index by annealing to achieve high figure of merit for TiO2/Ag/TiO2 multilayer films. Ceramics International, 2016, 42, 14071-14076.	4.8	24
70	Transparent Conductive ITO/Ag/ITO Electrode Deposited at Room Temperature for Organic Solar Cells. Journal of Electronic Materials, 2017, 46, 306-311.	2.2	24
71	Low-resistance Al-based reflectors for high-power GaN-based flip-chip light-emitting diodes. Applied Physics Letters, 2005, 86, 133503.	3.3	23
72	Three-dimensional nanostructured carbon nanotube array/PtRu nanoparticle electrodes for micro-fuel cells. Electrochemistry Communications, 2009, 11, 635-638.	4.7	23

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73	Allâ€Solution Processed Multicolor Patterning Technique of Perovskite Nanocrystal for Color Pixel Array and Flexible Optoelectronic Devices. Advanced Optical Materials, 2020, 8, 2000501.	7.3	23
74	High-performance GaN-based light emitting diodes grown on 8-inch Si substrate by using a combined low-temperature and high-temperature-grown AlN buffer layer. Journal of Alloys and Compounds, 2018, 732, 630-636.	5.5	22
75	Ultrahigh transparency of Ni/Au ohmic contacts to surface-treated p-type GaN. Journal of Applied Physics, 2000, 88, 5490-5492.	2.5	21
76	Highly reliable Ag/Zn/Ag ohmic reflector for high-power GaN-based vertical light-emitting diode. Optics Express, 2012, 20, 19194.	3.4	21
77	Patterning Allâ€Inorganic Halide Perovskite with Adjustable Phase for Highâ€Resolution Color Filter and Photodetector Arrays. Advanced Functional Materials, 2022, 32, .	14.9	21
78	Light extraction enhancement of GaN-based light emitting diodes using MgF2/Al omnidirectional reflectors. Journal of Applied Physics, 2008, 104, 053111.	2.5	20
79	Formation of low-resistance Ohmic contacts to N-face n-GaN for high-power GaN-based vertical light-emitting diodes. Applied Physics Letters, 2010, 97, 092103.	3.3	20
80	Ga Ordering and Electrical Conductivity in Nanotwin and Superlattice-Structured Ga-Doped ZnO. Crystal Growth and Design, 2012, 12, 1167-1172.	3.0	20
81	An Artificial Tactile Neuron Enabling Spiking Representation of Stiffness and Disease Diagnosis. Advanced Materials, 2022, 34, e2201608.	21.0	20
82	Effects of V/III ratio on ordering and antiphase boundaries in GaInP layers. Applied Physics Letters, 1997, 70, 3137-3139.	3.3	19
83	Design of near-unity transmittance dielectric/Ag/ITO electrodes for GaN-based light-emitting diodes. Current Applied Physics, 2015, 15, 833-838.	2.4	19
84	Sputtering-deposited amorphous SrVOx-based memristor for use in neuromorphic computing. Scientific Reports, 2020, 10, 5761.	3.3	19
85	GUIDED NANOSTRUCTURES USING ANODIZED ALUMINUM OXIDE TEMPLATES. Nano, 2011, 06, 541-555.	1.0	18
86	Optimization of transmittance and resistance of indium gallium zinc oxide/Ag/indium gallium zinc oxide multilayer electrodes for photovoltaic devices. Current Applied Physics, 2015, 15, 452-455.	2.4	18
87	Optimizing n-type contact design and chip size for high-performance indium gallium nitride/gallium nitride-based thin-film vertical light-emitting diode. Materials Science in Semiconductor Processing, 2015, 31, 153-159.	4.0	18
88	Low turn-on voltage and series resistance of polarization-induced InGaN-GaN LEDs by using p-InGaN/p-GaN superlattice. IEEE Photonics Technology Letters, 2006, 18, 1536-1538.	2.5	17
89	Plasmonic Au nanoparticles on 8â€‰nm TiO2 nanotubes for enhanced photocatalytic water splitting. Journal of Renewable and Sustainable Energy, 2013, 5, .	2.0	17
90	ITO-free inverted organic solar cells fabricated with transparent and low resistance ZnO/Ag/ZnO multilayer electrode. Current Applied Physics, 2015, 15, 829-832.	2.4	17

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91	Lateral composition modulation in GaP/InP short-period superlattices grown by solid source molecular beam epitaxy. Journal of Applied Physics, 2001, 90, 5086-5089.	2.5	16
92	A study of stress-induced p/sup +//n salicided junction leakage failure and optimized process conditions for sub-0.15-Î¼m CMOS technology. IEEE Transactions on Electron Devices, 2002, 49, 1985-1992.	3.0	16
93	Low-resistance and transparent ohmic contacts to p-type GaN using Znâ€“Ni solid solution/Au scheme. Applied Physics Letters, 2004, 84, 4663-4665.	3.3	16
94	Effect of the Mo back contact microstructure on the preferred orientation of CIGS thin films. , 2010, , .		16
95	Highly self-assembled nanotubular aluminum oxide by hard anodization. Journal of Materials Research, 2011, 26, 186-193.	2.6	16
96	Tuning Hydrophobicity with Honeycomb Surface Structure and Hydrophilicity with <scp><scp>CF</scp></scp>₄ Plasma Etching for Aerosolâ€Deposited Titania Films. Journal of the American Ceramic Society, 2012, 95, 3955-3961.	3.8	16
97	Interplay of sidewall damage and light extraction efficiency of micro-LEDs. Optics Letters, 2022, 47, 2250.	3.3	15
98	Effect of an In layer on the thermal stability of Ag reflector for vertical GaN-based light-emitting diodes. Superlattices and Microstructures, 2013, 56, 77-85.	3.1	14
99	Optical, electrical, and structural properties of ZrON/Ag/ZrON multilayer transparent conductor for organic photovoltaics application. Superlattices and Microstructures, 2013, 62, 119-127.	3.1	14
100	Investigation of Fermi level pinning at semipolar (11â€“22) p-type GaN surfaces. Superlattices and Microstructures, 2015, 77, 76-81.	3.1	14
101	Optimization of tunable guided-mode resonance filter based on refractive index modulation of graphene. Scientific Reports, 2019, 9, 19951.	3.3	14
102	Interfacial reaction effect on the ohmic properties of a Pt/Pd/Au contact onp-type GaN. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1101-1104.	2.1	13
103	Low resistance and transparent Niâ€“La solid solution/Au ohmic contacts to p-type GaN. Applied Physics Letters, 2004, 84, 1504-1506.	3.3	13
104	Pt/Indium Tin Oxide Ohmic Contacts to Arsenic-Doped p-Type ZnO Layers. Electrochemical and Solid-State Letters, 2005, 8, G167.	2.2	13
105	Possible Ohmic Mechanisms of Ag/Indium Tin Oxide p-Type Contacts for High-Brightness GaN-Based Light Emitting Diodes. Electrochemical and Solid-State Letters, 2008, 11, H36.	2.2	13
106	Highly thermally stable Pd/Zn/Ag ohmic contact to Ga-face p-type GaN. Journal of Alloys and Compounds, 2014, 588, 327-331.	5.5	13
107	Embedment of nano-sized Ag layer into Ag-doped In2O3 films for use as highly transparent and conductive anode in organic solar cells. Applied Surface Science, 2015, 347, 88-95.	6.1	13
108	Ag nanowire-based electrodes for improving the output power of ultraviolet AlGaN-based light-emitting diodes. Journal of Alloys and Compounds, 2017, 703, 198-203.	5.5	13

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109	Low-resistance and thermally stable Pd/Ru ohmic contacts to p-type GaN. Journal of Electronic Materials, 2002, 31, 903-906.	2.2	12
110	Electrical and structural properties of low-resistance Ti/Al/Re/Au ohmic contacts to n-type GaN. Journal of Electronic Materials, 2004, 33, 395-399.	2.2	12
111	Formation of low-resistance and transparent indium tin oxide ohmic contact for high-brightness GaN-based light-emitting diodes using a Snâ€“Ag interlayer. Materials Science in Semiconductor Processing, 2007, 10, 211-214.	4.0	12
112	Co-sputtering growth and electro-oxidation properties of Ptâ€“CuO nanocomposites for direct methanol thin film fuel cells. Journal of Alloys and Compounds, 2009, 471, L39-L42.	5.5	12
113	Improved efficiency of InGaN/GaN-based multiple quantum well solar cells by reducing contact resistance. Superlattices and Microstructures, 2012, 52, 299-305.	3.1	12
114	Design of mid-infrared filter array based on plasmonic metal nanodiscs array and its application to on-chip spectrometer. Scientific Reports, 2021, 11, 12218.	3.3	12
115	Effects of Current, Temperature, and Chip Size on the Performance of AlGaInP-Based Red Micro-Light-Emitting Diodes with Different Contact Schemes. ECS Journal of Solid State Science and Technology, 2021, 10, 095001.	1.8	12
116	Abnormal junction profile of silicided p/sup +//n shallow junctions: a leakage mechanism. IEEE Electron Device Letters, 2002, 23, 188-190.	3.9	11
117	Enhanced Light Output of GaN-Based Light-Emitting Diodes by Using Omnidirectional Sidewall Reflectors. IEEE Photonics Technology Letters, 2007, 19, 1562-1564.	2.5	11
118	Recovery of dry etch-induced damage of nano-patterned GaN-based light-emitting diodes by rapid-thermal-annealing. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 881-886.	1.8	11
119	Flexible and transparent TiO₂/Ag/ITO multilayer electrodes on PET substrates for organic photonic devices. Journal of Materials Research, 2015, 30, 1593-1598.	2.6	11
120	Ultrafast chemical lithiation of single crystalline silicon nanowires: in situ characterization and first principles modeling. RSC Advances, 2015, 5, 17438-17443.	3.6	11
121	Agâ€“Pdâ€“Cu alloy reflector to improve the opto-electrical performance and electromigration resistance of near ultraviolet GaN-based light-emitting diode. Journal of Alloys and Compounds, 2019, 800, 512-517.	5.5	11
122	Surface passivation of light emitting diodes: From nano-size to conventional mesa-etched devices. Surfaces and Interfaces, 2020, 21, 100765.	3.0	11
123	Improved Light Output of AlGaInP-Based Micro-Light Emitting Diode Using Distributed Bragg Reflector. IEEE Photonics Technology Letters, 2020, 32, 438-441.	2.5	11
124	Nano-dot addition effect on the electrical properties of Ni contacts to p-type GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2524-2527.	0.8	10
125	Characteristics of Pt Schottky contacts on hydrogen peroxide-treated n-type ZnO(0001) layers. Superlattices and Microstructures, 2006, 39, 211-217.	3.1	10
126	Diffuse diffracted features and ordered domain structures in GaInP layers grown by organometallic vapor phase epitaxy. Journal of Electronic Materials, 1998, 27, 1117-1123.	2.2	9

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127	Ir/Ag reflector for high-performance GaN-based near UV light emitting diodes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 133, 26-29.	3.5	9
128	Improved light output power of GaN-based flip-chip light-emitting diode through SiO2 cones. Electronic Materials Letters, 2012, 8, 549-552.	2.2	9
129	Delayed <111> texture for improving the thermal stability of Ag reflectors for high-performance GaN-based light-emitting diodes. Scripta Materialia, 2014, 80, 5-8.	5.2	9
130	Improved angular color uniformity and hydrothermal reliability of phosphor-converted white light-emitting diodes by using phosphor sedimentation. Optics Express, 2018, 26, 28634.	3.4	9
131	Structural and optical properties of GaxIn1â^'xP layers grown by chemical beam epitaxy. Journal of Electronic Materials, 1998, 27, 409-413.	2.2	8
132	Charge-discharge induced phase transformation of RuO2 electrode for thin film supercapacitor. Metals and Materials International, 2003, 9, 239-246.	3.4	8
133	High-Efficiency GaN-Based Light-Emitting Diodes Fabricated With Metallic Hybrid Reflectors. IEEE Electron Device Letters, 2008, 29, 582-584.	3.9	8
134	Improved electrical and thermal properties of Ag contacts for GaN-based flip-chip light-emitting diodes by using a NiZn alloy capping layer. Superlattices and Microstructures, 2009, 46, 578-584.	3.1	8
135	Nanostructure Ag dots for improving thermal stability of Ag reflector for GaN-based light-emitting diodes. Applied Physics Letters, 2012, 101, 021115.	3.3	8
136	Morphological stability of Ag reflector for high-power GaN-based vertical light-emitting diode by addition of Ni layer. Superlattices and Microstructures, 2014, 73, 342-349.	3.1	8
137	Formation of low resistance Ti/Al-based ohmic contacts on (11â€“22) semipolar n-type GaN. Journal of Alloys and Compounds, 2015, 652, 167-171.	5.5	8
138	Formation of Flexible and Transparent Indium Gallium Zinc Oxide/Ag/Indium Gallium Zinc Oxide Multilayer Film. Journal of Electronic Materials, 2016, 45, 4265-4269.	2.2	8
139	An Optically Flat Conductive Outcoupler Using Core/Shell Ag/ZnO Nanochurros. Small, 2018, 14, e1800056.	10.0	8
140	Combined effects of oxygen pressures and RF powers on the electrical characteristics of ITO-based multilayer transparent electrodes. Vacuum, 2019, 169, 108871.	3.5	8
141	Electrical Characteristics of Metal Contacts to Laser-Irradiated N-Polar n-Type GaN. IEEE Electron Device Letters, 2009, 30, 319-321.	3.9	7
142	Using agglomerated Ag grid to improve the light output of near ultraviolet AlGaN-based light-emitting diode. Microelectronic Engineering, 2017, 169, 29-33.	2.4	7
143	Structural study of GaN grown on (001) GaAs by organometallic vapor phase epitaxy. Journal of Electronic Materials, 1999, 28, 873-877.	2.2	6
144	Thermally stable Nb and Nb/Au ohmic contacts to p-GaN. Journal of Electronic Materials, 2001, 30, 266-270.	2.2	6

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145	Formation of nickel disilicide using nickel implantation and rapid thermal annealing. Journal of Electronic Materials, 2003, 32, 1072-1078.	2.2	6
146	Fabrication and Magnetic Properties of Nonmagnetic Ion Implanted Magnetic Recording Films for Bit-Patterned Media. IEEE Transactions on Magnetics, 2011, 47, 2532-2535.	2.1	6
147	Growth of amorphous silica nanowires using nickel silicide catalyst by a thermal annealing process. Current Applied Physics, 2011, 11, 199-202.	2.4	6
148	Effect of deposition temperature on cubic boron nitride thin film deposited by unbalanced magnetron sputtering method with a nanocrystalline diamond buffer layer. Metals and Materials International, 2013, 19, 1323-1326.	3.4	6
149	Effect of Amine Additive for the Synthesis of Cadmium Selenide Quantum Dots in a Microreactor. International Journal of Applied Ceramic Technology, 2016, 13, 223-227.	2.1	6
150	Electrical and optical characteristics of transparent conducting Si-doped ZnO/hole-patterned Ag/Si-doped ZnO multilayer films. Ceramics International, 2017, 43, 3693-3697.	4.8	6
151	Hole injection mechanism in the quantum wells of blue light emitting diode with V pits for micro-display application. Applied Physics Express, 2019, 12, 102016.	2.4	6
152	Formation of high ultraviolet transparent SrVOx/Ag-based conducting electrode. Ceramics International, 2020, 46, 19484-19490.	4.8	6
153	Heavy Mg Doping to Form Reliable Rh Reflective Ohmic Contact for 278 nm Deep Ultraviolet AlGaN-Based Light-Emitting Diodes. ECS Journal of Solid State Science and Technology, 2020, 9, 065016.	1.8	6
154	Electrical characteristics of thermally stable Ru and Ru/Au ohmic contacts to surface-treated p-type GaN. Journal of Electronic Materials, 2001, 30, 94-98.	2.2	5
155	Growth of crack-free high-quality GaN on Si(111) using a low-temperature AlN interlayer: observation of tilted domain structures in the AlN interlayer. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2150-2153.	0.8	5
156	Highly Reliable Ohmic Contacts to N-Polar n-Type GaN for High-Power Vertical Light-Emitting Diodes. IEEE Photonics Technology Letters, 2011, 23, 1784-1786.	2.5	5
157	Fabrication of Patterned Magnetic Nanomaterials for Data Storage Media. Jom, 2012, 64, 1165-1173.	1.9	5
158	Via-Hole-Type Flip-Chip Packaging to Improve the Thermal Characteristics and Reliability of Blue Light Emitting Diodes. ECS Journal of Solid State Science and Technology, 2019, 8, Q165-Q170.	1.8	5
159	Oblique-Angle Deposited SiO₂/Al Omnidirectional Reflector for Enhancing the Performance of AlGaN-Based Ultraviolet Light-Emitting Diode. ECS Journal of Solid State Science and Technology, 2020, 9, 026005.	1.8	5
160	A Comparison Study on Multilayered Barrier Oxide Structure in Charge Trap Flash for Synaptic Operation. Crystals, 2021, 11, 70.	2.2	5
161	Stable electrical performance of AlGaInP-based red micro-light emitting diode by controlling interfacial morphologies of metal contacts. Journal of Alloys and Compounds, 2021, 872, 159629.	5.5	5
162	Unprecedentedly Large Photocurrents in Colloidal PbS Quantum-Dot Solar Cells Enabled by Atomic Layer Deposition of Zinc Oxide Electron Buffer Layer. ACS Applied Energy Materials, 0, , .	5.1	5

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163	Low resistance and highly reflective Cuâ€“Ni solid solution/Ag ohmic contacts to p-GaN for flip-chip light emitting diodes. Physica Status Solidi A, 2004, 201, 2823-2826.	1.7	4
164	Improvement of the reverse leakage behavior of Ag-based ohmic contacts for GaN-based light-emitting diodes using MgZnO interlayer. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 129, 176-179.	3.5	4
165	Depth-resolved correlation between physical and electrical properties of stressed SiNx gate insulator films. Journal of Electroceramics, 2011, 26, 63-67.	2.0	4
166	Electrical characteristics of Cu-doped In2O3/Sb-doped SnO2 ohmic contacts for high-performance GaN-based light-emitting diodes. Journal of Electroceramics, 2011, 27, 109-113.	2.0	4
167	Dependence of thickness and temperature on the thermal stability of Ag films deposited on GaN layers for vertical-geometry GaN-based light-emitting diodes. Superlattices and Microstructures, 2013, 61, 160-167.	3.1	4
168	Improving the output power of near-ultraviolet InGaN/GaN-based light emitting diodes by enhancing the thermal and electrical properties of Ag-based reflector. Superlattices and Microstructures, 2013, 64, 7-14.	3.1	4
169	Electron Transport Layer-Free Inverted Organic Solar Cells Fabricated with Highly Transparent Low-Resistance Indium Gallium Zinc Oxide/Ag/Indium Gallium Zinc Oxide Multilayer Electrode. Journal of Electronic Materials, 2017, 46, 2140-2146.	2.2	4
170	Inhomogeneity of barrier heights of transparent Ag/ITO Schottky contacts on n-type GaN annealed at different temperatures. Journal of Alloys and Compounds, 2018, 742, 66-71.	5.5	4
171	Interfacial reactions to form high-barrier-height ITO-based Schottky contacts on p-type GaN using a Ti interlayer. Journal of Alloys and Compounds, 2018, 741, 999-1005.	5.5	4
172	Using Ag disc array to tune infrared transmittance of ITO-based multilayer films. Journal of Alloys and Compounds, 2019, 785, 742-746.	5.5	4
173	Solid-State Carbon-Doped GaN Schottky Diodes by Controlling Dissociation of the Graphene Interlayer with a Sputtered AlN Capping Layer. ACS Applied Materials & Interfaces, 2019, 11, 48086-48094.	8.0	4
174	Plasma and Annealing Treatments to Form Height-Barrier Ni-Based Schottky Contact to n-GaN. ECS Journal of Solid State Science and Technology, 2019, 8, Q194-Q199.	1.8	4
175	Improvement in the Reliability of AlGaInP-Based Light-Emitting Diode Package Using Optimal Silicone and Leadframe Structure. ECS Journal of Solid State Science and Technology, 2020, 9, 015014.	1.8	4
176	Damage-free plasma etching to enhance performance of AlGaInP-based micro-light emitting diode. IEEE Photonics Technology Letters, 2020, , 1-1.	2.5	4
177	Using SiO2-Based Distributed Bragg Reflector to Improve the Performance of AlGaInP-Based Red Micro-Light Emitting Diode. ECS Journal of Solid State Science and Technology, 2020, 9, 036002.	1.8	4
178	Using a NiZn solid solution layer to produce high-barrier height Schottky contact to semipolar (20â€“21) n-type GaN. Journal of Alloys and Compounds, 2021, 852, 157003.	5.5	4
179	Low Resistance and Thermally Stable Pt/Ru Ohmic Contacts to p-Type GaN. Physica Status Solidi A, 2000, 180, 103-107.	1.7	3
180	Effects of Fe film Thickness and Ammonia on the Growth Behavior of Carbon Nanotubes grown by thermal Chemical Vapor Deposition. Materials Research Society Symposia Proceedings, 2001, 706, 1.	0.1	3

#	Article	IF	Citations
181	Structural properties of GaAsN grown on (001) GaAs by metalorganic molecular beam epitaxy. Journal of Electronic Materials, 2001, 30, 900-906.	2.2	3
182	Thermally stable and low-resistance W/Ti/Au contacts to n-type GaN. Journal of Materials Science: Materials in Electronics, 2009, 20, 9-13.	2.2	3
183	Insights into the reactive ion etching mechanism of nanocrystalline diamond films as a function of film microstructure and the presence of fluorine gas. Journal of Applied Physics, 2010, 107, 044313.	2.5	3
184	Improved Electrostatic Discharge Protection in GaN-Based Vertical Light-Emitting Diodes by an Internal Diode. IEEE Photonics Technology Letters, 2011, 23, 423-425.	2.5	3
185	Enhanced thermal stability of Ag ohmic reflector for InGaN/GaN light-emitting diode using a Ru capping layer. Superlattices and Microstructures, 2012, 52, 357-363.	3.1	3
186	Low-resistance Cr/Al Ohmic contacts to N-polar n-type GaN for high-performance vertical light-emitting diodes. Current Applied Physics, 2012, 12, 225-227.	2.4	3
187	Improved light output power of GaN-based light-emitting diodes by using Ag grids. Microelectronic Engineering, 2012, 95, 10-13.	2.4	3
188	Polarity dependence of the electrical characteristics of Ag reflectors for high-power GaN-based light emitting diodes. Applied Physics Letters, 2014, 104, 172104.	3.3	3
189	Improving performance of high-power indium gallium nitride/gallium nitride-based vertical light-emitting diodes by employing simple n-type electrode pattern. Materials Science in Semiconductor Processing, 2015, 31, 209-213.	4.0	3
190	Reducing forward voltage and enhancing output performance of InGaN-based blue light-emitting diodes using metal dot-embedded transparent p-type finger. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600792.	1.8	3
191	Effect of unevenly-distributed V pits on the optical and electrical characteristics of green micro-light emitting diode. Journal Physics D: Applied Physics, 2020, 53, 045106.	2.8	3
192	Self-catalytic-grown SnO x nanocones for light outcoupling enhancement in organic light-emitting diodes. Nanotechnology, 2020, 31, 135204.	2.6	3
193	Forming high transmittance GaSnO/Ag/GaSnO conducting electrodes for optoelectronic devices. Ceramics International, 2020, 46, 28165-28172.	4.8	3
194	Optimization of InGaN-based LED Package Structure for Automotive Adaptive Driving Beam Headlamp. ECS Journal of Solid State Science and Technology, 2020, 9, 055017.	1.8	3
195	Improved Reliability of 278 nm Deep Ultraviolet AlGaN-Based Flip-Chip Light Emitting Diodes by Using ITO/Al Contact. ECS Journal of Solid State Science and Technology, 2021, 10, 045002.	1.8	3
196	Optimization of Ni/Ag-Based Reflectors to Improve the Performance of 273 nm Deep Ultraviolet AlGaN-Based Light Emitting Diodes. ECS Journal of Solid State Science and Technology, 2021, 10, 045005.	1.8	3
197	Realization of an Artificial Visual Nervous System using an Integrated Optoelectronic Device Array (Adv. Mater. 51/2021). Advanced Materials, 2021, 33, .	21.0	3
198	Formation of thermally stable Ni monosilicide using an inductively coupled plasma process. Journal of Electronic Materials, 2004, 33, 916-922.	2.2	2

#	Article	IF	Citations
199	Silver-induced activation for improving the electrical characteristics of GaN-based vertical light-emitting diodes. Current Applied Physics, 2013, 13, 377-380.	2.4	2
200	Controlling interface oxygen for forming Ag ohmic contact to semi-polar (1 1 â˜2 2) plane p-type GaN. Superlattices and Microstructures, 2014, 75, 962-967.	3.1	2
201	Controlling the defect density to improve the output power of InGaN/GaN-based vertical light-emitting diodes by using substrates patterned with SiO₂lenses. Philosophical Magazine, 2016, 96, 2919-2929.	1.6	2
202	Thermally stable AuBe-based ohmic contacts to p-type GaP for AlGaInP-based light-emitting diode by using a tungsten barrier layer. Journal of the Korean Physical Society, 2016, 68, 306-310.	0.7	2
203	A tantalum diffusion barrier layer for improving the output performance of AlGaInP-based light-emitting diodes. Japanese Journal of Applied Physics, 2016, 55, 032102.	1.5	2
204	Improved light output power of GaN-based ultraviolet light-emitting diode using a mesh-type GaN/SiO₂ /Al omnidirectional reflector. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600789.	1.8	2
205	Improvement of the light output of AlGaInP-based light-emitting diode by employing highly transparent Au/ITO p -type electrode. Journal of Alloys and Compounds, 2017, 699, 1180-1185.	5.5	2
206	Thermally stable AgCu alloy disc array for near infrared filters. Current Applied Physics, 2020, 20, 1321-1327.	2.4	2
207	Effects of Ultraviolet Wavelength and Ambient Temperature on Reliability of Silicones in InAlGaN-Based Light-Emitting-Diode Package. ECS Journal of Solid State Science and Technology, 2020, 9, 035005.	1.8	2
208	Improving Performance of GaAs-Based Vertical-Cavity Surface-Emitting Lasers by Employing Thermally Conductive Metal Substrate. ECS Journal of Solid State Science and Technology, 2021, 10, 015001.	1.8	2
209	Cr/ITO semi-transparent n-type electrode for high-efficiency AlGaN/InGaN-based near ultraviolet light-emitting diodes. Superlattices and Microstructures, 2017, 111, 872-877.	3.1	2
210	High ultraviolet transparent conducting electrodes formed using tantalum oxide/Ag multilayer. Ceramics International, 2022, 48, 3536-3543.	4.8	2
211	Modulation of lattice strain in ZnO thin films by ion implantation. Materials Letters, 2022, 314, 131839.	2.6	2
212	Improved performance of deep ultraviolet AlGaN-based light-emitting diode by reducing contact resistance of Al-based reflector. Journal of Alloys and Compounds, 2022, 910, 164895.	5.5	2
213	The effect of dry etching condition on the performance of blue micro light-emitting diodes with reduced quantum confined Stark effect epitaxial layer. Journal of Applied Physics, 2022, 131, 153104.	2.5	2
214	Ultra - Shallow p+/n Junction Formed by Plasma Ion Implantation. Materials Research Society Symposia Proceedings, 2000, 610, 371.	0.1	1
215	Full Color Luminescence from Amorphous Silicon Quantum Dots Embedded in Silion Nitride. Materials Research Society Symposia Proceedings, 2000, 638, 1.	0.1	1
216	High quality tin zinc oxide/Ag ohmic contacts for UV flip-chip light-emitting diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 2133-2136.	0.8	1

#	Article	IF	Citations
217	Electrical properties of nonalloyed Ni/Au ohmic contacts to laser-irradiated p-GaN. Journal of Materials Science: Materials in Electronics, 2006, 17, 831-834.	2.2	1
218	Ni implantation-induced enhancement of the crystallisation of amorphous Si. Journal of Materials Science: Materials in Electronics, 2006, 17, 979-985.	2.2	1
219	Electrical Characteristics of Ti/Al Ohmic Contacts to Molecular Beam Epitaxy-Grown N-polar n-type GaN for Vertical-Structure Light-Emitting Diodes. Journal of Electronic Materials, 2012, 41, 2145-2150.	2.2	1
220	Effect of TiO2 nanopatterns on the performance of hydrogenated amorphous silicon thin-film solar cells. Thin Solid Films, 2012, 520, 6287-6290.	1.8	1
221	Growth behavior of cubic boron nitride (cBN) phase in B-C-N film deposited on Si substrate with non-uniform ion flux. Metals and Materials International, 2013, 19, 591-595.	3.4	1
222	Effect of Different Quantum Well Structures on the Output Power Performance of GaN-Based Light-Emitting Diodes. Journal of Electronic Materials, 2013, 42, 2876-2880.	2.2	1
223	Electrical Characteristics of Schottky Contacts to p-Type (001) GaP: Understanding of Carrier Transport Mechanism. Journal of Electronic Materials, 2016, 45, 5297-5301.	2.2	1
224	Inverted Organic Solar Cells Fabricated with Roomâ€Temperatureâ€deposited Transparent Multilayer Electrodes. Bulletin of the Korean Chemical Society, 2017, 38, 856-860.	1.9	1
225	Forming ITO/Ag Hole-Array/ITO Multilayers for Near Infrared Transparent Conducting Electrodes and Filters. ECS Journal of Solid State Science and Technology, 2019, 8, Q189-Q193.	1.8	1
226	Improved Leakage and Output Characteristics of Pixelated LED Array for Headlight application. ECS Journal of Solid State Science and Technology, 2020, 9, 045011.	1.8	1
227	Performance Comparison of InGaN-Based Phosphor Converted and AlGaInP-Based Red Light-Emitting Diode Packages for Vehicle Rear Fog Lamps. ECS Journal of Solid State Science and Technology, 2020, 9, 055003.	1.8	1
228	Using Ag Sinter Paste to Improve the Luminous Flux and Reliability of InGaN-Based LED Package for Commercial Vehicle Daytime Running Light. ECS Journal of Solid State Science and Technology, 2021, 10, 015004.	1.8	1
229	Improving Emission Uniformity of InGaN/GaN-Based Vertical LEDs by Using Reflective ITO/Ag n-Contact. Electronics (Switzerland), 2021, 10, 975.	3.1	1
230	Using Self-Aligned Si Barrier to Enhance the Contrast Ratio and Performance of Pixelated Light Emitting Diode for Vehicle Headlamp. ECS Journal of Solid State Science and Technology, 2021, 10, 045003.	1.8	1
231	High Field-Effect Mobility Two-Channel InGaZnO Thin-Film Transistors for Low-Voltage Operation. IEEE Transactions on Electron Devices, 2021, 68, 6166-6170.	3.0	1
232	The Effect Of The Nucleation Layer On The Low Temperature Growth Of Gan Using A Remote Plasma Enhanced â€“ Ultrahigh Vacuum Chemical Vapor Deposition (RPE-UHVCVD). Materials Research Society Symposia Proceedings, 1997, 482, 175.	0.1	0
233	Atomie Force Microscope Study of Two-Dimensional Dopant Delineation by Selective Chemical Etching. Materials Research Society Symposia Proceedings, 1997, 490, 53.	0.1	0
234	Structural Study of GaN(As,P) Layers Grown on (0001) GaN by Gas Source Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 1998, 537, 1.	0.1	0

#	Article	IF	Citations
235	Structural Study of GaN(As,P) Layers Grown on (0001) GaN by Gas Source Molecular Beam Epitaxy. MRS Internet Journal of Nitride Semiconductor Research, 1999, 4, 167-172.	1.0	0
236	High Quality Non-Alloyed Pt Ohmic Contacts to P-Type GaN Using Two-Step Surface Treatment. Materials Research Society Symposia Proceedings, 1999, 595, 1.	0.1	0
237	High Quality Non-Alloyed Pt Ohmic Contacts to P-Type GaN Using Two-Step Surface Treatment. MRS Internet Journal of Nitride Semiconductor Research, 2000, 5, 521-527.	1.0	0
238	Growth characteristics of ZnO nanowires on silicon, sapphire and GaN substrates. , 0, , .		0
239	Formation of high quality ohmic contacts to p-GaN using metal/transparent conducting oxides. , 0, , .		0
240	GaN-based Light Emitting Diode with Transparent Nanoparticles-Embedded p-Ohmic Electrodes. Materials Research Society Symposia Proceedings, 2005, 892, 335.	0.1	0
241	Formation of low resistance nonalloyed ohmic contacts to p-type GaN by KrF laser irradiation. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1717-1720.	0.8	0
242	Low resistance and highly reflective ohmic contacts top -type GaN using transparent interlayers for flip-chip light emitting diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 2207-2210.	0.8	0
243	Ordered domain structures of nitrogen-doped GaInP layers grown by organometallic vapor phase epitaxy. Journal of Materials Science: Materials in Electronics, 2008, 19, 1092-1096.	2.2	0
244	Electrical Transport Phenomena of Single ZnO Nanowire Device Directly Measured Using Nano Manipulator. Materials Research Society Symposia Proceedings, 2010, 1258, 1.	0.1	0
245	Improved Light Output of GaN-Based Light-Emitting Diodes by Using AgNi Reflective Contacts. Journal of Electronic Materials, 2011, 40, 2173-2178.	2.2	0
246	Improving the thermal stability of Ag Ohmic contacts for GaN-based vertical light-emitting diodes with a Cu capping layer. Journal of the Korean Physical Society, 2012, 60, 857-861.	0.7	0
247	A Thermally Stable NiZn/Ta/Ni Scheme to Replace AuBe/Au Contacts in High-Efficiency AlGaInP-Based Light-Emitting Diodes. Journal of Electronic Materials, 2017, 46, 4750-4754.	2.2	0
248	Improvement of The Light Output of Blue InGaN-Based Light Emitting Diodes by Using a Buried Stripe-Typen-Contact and Reflective Bonding Pad. ECS Journal of Solid State Science and Technology, 2020, 9, 015021.	1.8	0
249	Tantalum Doping to Improve Switching Characteristics and Bias Stress Stability of Amorphous Indium-Gallium-Zin Oxide Thin-Film Transistors. ECS Journal of Solid State Science and Technology, 2021, 10, 065004.	1.8	0
250	Selective Coating of White Silicone to Improve the Optical and Thermal Characteristics of White LED Packages. ECS Journal of Solid State Science and Technology, 2020, 9, 065008.	1.8	0
251	Effect of the Surface Morphology of Plated Printed Circuit Board on the Reliability of LED Packages. ECS Journal of Solid State Science and Technology, 2020, 9, 065018.	1.8	0
252	Inhomogeneous Barrier Height Characteristics of n-Type AlInP for Red AlGaInP-Based Light-Emitting Diodes. ECS Journal of Solid State Science and Technology, 2022, 11, 035007.	1.8	0

#	Article	IF	Citations
253	SWIR imaging using PbS QD photodiode array sensors. Optics Express, 2022, 30, 20659.	3.4	0