Tongtong Zhu

List of Publications by Year
in descending order

86 papers	1,498 citations	304743 22 h-index	377865 34 g-index
87 all docs	87 docs citations	87 times ranked	1824 citing authors

#	Article	IF	Citations
1	Microstructural origins of localization in InGaN quantum wells. Journal Physics D: Applied Physics, 2010, 43, 354003.	2.8	78
2	Exciton localization on basal stacking faults in a-plane epitaxial lateral overgrown GaN grown by hydride vapor phase epitaxy. Journal of Applied Physics, 2009, 105, 043102.	2.5	69
3	Low threshold, room-temperature microdisk lasers in the blue spectral range. Applied Physics Letters, 2013, 103, .	3.3	62
4	Functional conductive nanomaterials via polymerisation in nano-channels: PEDOT in a MOF. Materials Horizons, 2017, 4, 64-71.	12.2	60
5	Blue lasing at room temperature in high quality factor GaNâˆ•AlInN microdisks with InGaN quantum wells. Applied Physics Letters, 2007, 90, 061106.	3.3	52
6	Unintentional doping in GaN. Physical Chemistry Chemical Physics, 2012, 14, 9558.	2.8	51
7	Wafer-scale Fabrication of Non-Polar Mesoporous GaN Distributed Bragg Reflectors via Electrochemical Porosification. Scientific Reports, 2017, 7, 45344.	3.3	47
8	Indium clustering in a-plane InGaN quantum wells as evidenced by atom probe tomography. Applied Physics Letters, 2015, 106, .	3.3	46
9	Low-temperature time-resolved cathodoluminescence study of exciton dynamics involving basal stacking faults in a-plane GaN. Applied Physics Letters, 2009, 94, .	3.3	44
10	Radiative recombination mechanisms in polar and non-polar InGaN/GaN quantum well LED structures. Applied Physics Letters, 2016, 109, .	3.3	41
11	Distinctive signature of indium gallium nitride quantum dot lasing in microdisk cavities. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14042-14046.	7.1	38
12	Correlations between the morphology and emission properties of trench defects in InGaN/GaN quantum wells. Journal of Applied Physics, 2013, 113, .	2.5	34
13	Non-polar (11-20) InGaN quantum dots with short exciton lifetimes grown by metal-organic vapor phase epitaxy. Applied Physics Letters, 2013, 102, 251905.	3.3	34
14	Effect of Threading Dislocations on the Quality Factor of InGaN/GaN Microdisk Cavities. ACS Photonics, 2015, 2, 137-143.	6.6	32
15	Surface morphology of homoepitaxial c-plane GaN: Hillocks and ridges. Journal of Crystal Growth, 2013, 383, 12-18.	1.5	31
16	Ultra-low-threshold InGaN/GaN quantum dot micro-ring lasers. Optics Letters, 2018, 43, 799.	3.3	31
17	Polarisation-controlled single photon emission at high temperatures from InGaN quantum dots. Nanoscale, 2017, 9, 9421-9427.	5.6	29
18	Microstructural, optical, and electrical characterization of semipolar (112Â¯2) gallium nitride grown by epitaxial lateral overgrowth. Journal of Applied Physics, 2010, 108, 083521.	2.5	27

#	Article	IF	Citations
19	Ultrafast, Polarized, Single-Photon Emission from m-Plane InGaN Quantum Dots on GaN Nanowires. Nano Letters, 2016, 16, 7779-7785.	9.1	26
20	On the origin of basal stacking faults in nonpolar wurtzite films epitaxially grown on sapphire substrates. Journal of Applied Physics, 2012, 112, .	2.5	25
21	Ultra-low threshold gallium nitride photonic crystal nanobeam laser. Applied Physics Letters, 2015, 106, .	3.3	25
22	The atomic structure of polar and non-polar InGaN quantum wells and the green gap problem. Ultramicroscopy, 2017, 176, 93-98.	1.9	24
23	The microstructure of non-polar a-plane (112Â¯0) InGaN quantum wells. Journal of Applied Physics, 2016, 119, .	2.5	22
24	Encapsulation of methylammonium lead bromide perovskite in nanoporous GaN. APL Materials, 2019, 7, .	5.1	22
25	Spectral diffusion time scales in InGaN/GaN quantum dots. Applied Physics Letters, 2019, 114, .	3.3	20
26	Dry etch release processes for micromachining applications. Journal of Vacuum Science & Technology B, 2007, 25, 2553.	1.3	19
27	Improvement of single photon emission from InGaN QDs embedded in porous micropillars. Applied Physics Letters, 2018, 113, .	3.3	19
28	Dislocations as channels for the fabrication of sub-surface porous GaN by electrochemical etching. APL Materials, 2020, 8, .	5.1	19
29	Growth of non-polar (11-20) InGaN quantum dots by metal organic vapour phase epitaxy using a two temperature method. APL Materials, 2014, 2, .	5.1	18
30	Comparative studies of efficiency droop in polar and non-polar InGaN quantum wells. Applied Physics Letters, 2016, 108, .	3.3	18
31	Effects of microstructure and growth conditions on quantum emitters in gallium nitride. APL Materials, 2019, 7, .	5.1	18
32	High temperature stability in nonâ€polar (11$ ar 2 $0) InGaN quantum dots: Exciton and biexciton dynamics. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 702-705.	0.8	17
33	Observations of Rabi oscillations in a non-polar InGaN quantum dot. Applied Physics Letters, 2014, 104, 263108.	3.3	16
34	Low defect large area semiâ€polar (112) GaN grown on patterned (113) silicon. Physica Status Solidi (B): Basic Research, 2015, 252, 1104-1108.	1.5	16
35	Theoretical and experimental analysis of radiative recombination lifetimes in nonpolar InGaN/GaN quantum dots. Physica Status Solidi (B): Basic Research, 2017, 254, 1600675.	1.5	16
36	Properties of trench defects in InGaN/GaN quantum well structures. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 195-198.	1.8	15

#	Article	IF	Citations
37	Origins of Spectral Diffusion in the Micro-Photoluminescence of Single InGaN Quantum Dots. Japanese Journal of Applied Physics, 2013, 52, 08JE01.	1.5	15
38	An investigation into defect reduction techniques for growth of non-polar GaN on sapphire. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 541-544.	0.8	15
39	Porous AlGaN-Based Ultraviolet Distributed Bragg Reflectors. Materials, 2018, 11, 1487.	2.9	15
40	Optical studies of nonâ€polar mâ€plane () InGaN/GaN multiâ€quantum wells grown on freestanding bulk GaN. Physica Status Solidi (B): Basic Research, 2015, 252, 965-970.	1.5	14
41	Characterization of unintentional doping in nonpolar GaN. Journal of Applied Physics, 2010, 107, 023503.	2.5	13
42	Growth and optical characterisation of multilayers of InGaN quantum dots. Journal of Crystal Growth, 2012, 338, 262-266.	1.5	13
43	Nitride quantum light sources. Europhysics Letters, 2016, 113, 38001.	2.0	13
44	Nonpolar GaN-based microcavity using AlNâ•GaN distributed Bragg reflector. Applied Physics Letters, 2008, 92, 061114.	3.3	12
45	Evaluation of growth methods for the heteroepitaxy of non-polar<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0017.gif" overflow="scroll"><mml:mo>(</mml:mo><mml:mn>11</mml:mn><mml:mover) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 422 Tc (on sapphire by MOVPE. Journal of Crystal Growth, 2014, 408, 32-41.	1.5	12
46	Non-polar InGaN quantum dot emission with crystal-axis oriented linear polarization. Applied Physics Letters, 2015, 106, .	3.3	12
47	Deterministic optical polarisation in nitride quantum dots at thermoelectrically cooled temperatures. Scientific Reports, 2017, 7, 12067.	3.3	11
48	Direct generation of linearly polarized single photons with a deterministic axis in quantum dots. Nanophotonics, 2017, 6, 1175-1183.	6.0	11
49	Nanoscopic insights into the effect of silicon on core-shell InGaN/GaN nanorods: Luminescence, composition, and structure. Journal of Applied Physics, 2018, 123, 045103.	2.5	10
50	Enhanced piezoelectricity and electromechanical efficiency in semiconducting GaN due to nanoscale porosity. Applied Materials Today, 2020, 21, 100858.	4.3	10
51	Defect Reduction in Semi-Polar (112Ì„2) Gallium Nitride Grown Using Epitaxial Lateral Overgrowth. Japanese Journal of Applied Physics, 2013, 52, 08JB01.	1.5	9
52	Local carrier recombination and associated dynamics in m-plane InGaN/GaN quantum wells probed by picosecond cathodoluminescence. Applied Physics Letters, 2016, 109, .	3.3	9
53	Light-output enhancement of InGaN light emitting diodes regrown on nanoporous distributed Bragg reflector substrates. Japanese Journal of Applied Physics, 2019, 58, SCCC14.	1.5	9
54	The relationship between the three-dimensional structure of porous GaN distributed Bragg reflectors and their birefringence. Journal of Applied Physics, 2020, 127, .	2.5	9

#	Article	IF	Citations
55	The effects of annealing on non-polar (1 1 2Â¯ 0) a-plane GaN films. Journal of Crystal Growth, 2010, 312, 3536-3543.	1.5	8
56	SCM and SIMS investigations of unintentional doping in IIIâ€nitrides. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 403-407.	0.8	8
57	Pure single-photon emission from an InGaN/GaN quantum dot. APL Materials, 2021, 9, .	5.1	8
58	Dislocation reduction in GaN grown on Si(111) using a strain-driven 3D GaN interlayer. Physica Status Solidi (B): Basic Research, 2010, 247, 1753-1756.	1.5	7
59	Terahertz electromodulation spectroscopy of electron transport in GaN. Applied Physics Letters, 2015, 106, 092107.	3.3	7
60	Highly polarized electrically driven single-photon emission from a non-polar InGaN quantum dot. Applied Physics Letters, 2017, 111, .	3.3	7
61	Defects in a-GaN grown on r-sapphire by hydride vapor phase epitaxy. Journal of Crystal Growth, 2011, 327, 6-12.	1.5	6
62	Microstructural dependency of optical properties of m-plane InGaN multiple quantum wells grown on 2Â° misoriented bulk GaN substrates. Applied Physics Letters, 2015, 107, .	3.3	5
63	Toward defectâ€free semiâ€polar GaN templates on preâ€structured sapphire. Physica Status Solidi (B): Basic Research, 2016, 253, 834-839.	1.5	5
64	Structural and optical properties of (112Ì…2) InGaN quantum wells compared to (0001) and (112Ì…0). Semiconductor Science and Technology, 2016, 31, 085007.	2.0	5
65	Highâ€temperature performance of nonâ€polar (11â€“20) InGaN quantum dots grown by a quasiâ€twoâ€temperature method. Physica Status Solidi (B): Basic Research, 2017, 254, 1600724.	1.5	5
66	Defects in III-nitride microdisk cavities. Semiconductor Science and Technology, 2017, 32, 033002.	2.0	5
67	Insight into the impact of atomic- and nano-scale indium distributions on the optical properties of InGaN/GaN quantum well structures grown on m-plane freestanding GaN substrates. Journal of Applied Physics, 2019, 125, 225704.	2.5	5
68	Nonâ€polar (11$ ar 2 $0) InGaN quantum dots with short exciton lifetimes grown by metalâ€organic vapour phase epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 698-701.	0.8	4
69	Growth of non-polar InGaN quantum dots with an underlying AlN/GaN distributed Bragg reflector by metal-organic vapour phase epitaxy. Superlattices and Microstructures, 2015, 88, 480-488.	3.1	4
70	Self-assembled Multilayers of Silica Nanospheres for Defect Reduction in Non- and Semipolar Gallium Nitride Epitaxial Layers. Crystal Growth and Design, 2016, 16, 1010-1016.	3.0	4
71	Origins of hillock defects on GaN templates grown on Si(111). Journal of Crystal Growth, 2016, 434, 123-127.	1.5	4
72	Temperature-dependent fine structure splitting in InGaN quantum dots. Applied Physics Letters, 2017, 111, .	3.3	4

#	Article	IF	Citations
73	On-Chip Thermal Insulation Using Porous GaN. Proceedings (mdpi), 2018, 2, .	0.2	4
74	X-ray characterisation of the basal stacking fault densities of (112Ì„2) GaN. CrystEngComm, 2021, 23, 6059-6069.	2.6	4
75	Dislocations at coalescence boundaries in heteroepitaxial GaN/sapphire studied after the epitaxial layer has completely coalesced. Ultramicroscopy, 2021, 231, 113258.	1.9	3
76	Decreased Fast Time Scale Spectral Diffusion of a Nonpolar InGaN Quantum Dot. ACS Photonics, 2022, 9, 275-281.	6.6	3
77	The impact of ScOxNyinterlayers on unintentional doping and threading dislocations in GaN. Journal of Physics: Conference Series, 2010, 209, 012067.	0.4	2
78	Structural characterization of porous GaN distributed Bragg reflectors using x-ray diffraction. Journal of Applied Physics, 2019, 126, 213109.	2.5	2
79	Sequential plan-view imaging of sub-surface structures in the transmission electron microscope. Materialia, 2020, 12, 100798.	2.7	2
80	Structure and composition of nonâ€polar (11â€20) InGaN nanorings grown by modified droplet epitaxy. Physica Status Solidi (B): Basic Research, 2016, 253, 840-844.	1.5	1
81	Structure and magnetic properties of an epitaxial Fe(110)/MgO(111)/GaN(0001) heterostructure. Journal of Applied Physics, 2018, 123, .	2.5	1
82	Quantification of unintentional doping in non-polar GaN using scanning capacitance microscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1875-1877.	0.8	0
83	Optical and structural characterization of N-face GaN epilayers grown on Ge (111) by plasma assisted molecular beam epitaxy. CrystEngComm, 2013, 15, 10590.	2.6	0
84	Toward defectâ€free semiâ€polar GaN templates on preâ€structured sapphire (Phys. Status Solidi B 5/2016). Physica Status Solidi (B): Basic Research, 2016, 253, 1024-1024.	1.5	0
85	Properties of GaN nanowires with Sc_xGa_{1â^'x}N insertion. Physica Status Solidi (B): Basic Research, 2017, 254, 1600740.	1.5	0
86	Nitride Single Photon Sources. , 2018, , .		0