

# Tongtong Zhu

## List of Publications by Year in descending order

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86  
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docs citations

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times ranked

1824  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Decreased Fast Time Scale Spectral Diffusion of a Nonpolar InGaN Quantum Dot. ACS Photonics, 2022, 9, 275-281.   | 6.6 | 3         |
| 2  | X-ray characterisation of the basal stacking fault densities of (112̄ <sub>1</sub> ,2) GaN. CrystEngComm, 2021, 23, 6059-6069.   | 2.6 | 4         |
| 3  | Dislocations at coalescence boundaries in heteroepitaxial GaN/sapphire studied after the epitaxial layer has completely coalesced. Ultramicroscopy, 2021, 231, 113258.   | 1.9 | 3         |
| 4  | Pure single-photon emission from an InGaN/GaN quantum dot. APL Materials, 2021, 9, .   | 5.1 | 8         |
| 5  | Enhanced piezoelectricity and electromechanical efficiency in semiconducting GaN due to nanoscale porosity. Applied Materials Today, 2020, 21, 100858.   | 4.3 | 10        |
| 6  | 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         |
| 7  | Dislocations as channels for the fabrication of sub-surface porous GaN by electrochemical etching. APL Materials, 2020, 8, .   | 5.1 | 19        |
| 8  | Sequential plan-view imaging of sub-surface structures in the transmission electron microscope. Materialia, 2020, 12, 100798.  | 2.7 | 2         |
| 9  | Effects of microstructure and growth conditions on quantum emitters in gallium nitride. APL Materials, 2019, 7, .  | 5.1 | 18        |
| 10 | 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         |
| 11 | 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         |
| 12 | Spectral diffusion time scales in InGaN/GaN quantum dots. Applied Physics Letters, 2019, 114, .  | 3.3 | 20        |
| 13 | Encapsulation of methylammonium lead bromide perovskite in nanoporous GaN. APL Materials, 2019, 7, .   | 5.1 | 22        |
| 14 | Structural characterization of porous GaN distributed Bragg reflectors using x-ray diffraction. Journal of Applied Physics, 2019, 126, 213109.   | 2.5 | 2         |
| 15 | Nanosopic 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        |
| 16 | Structure and magnetic properties of an epitaxial Fe(110)/MgO(111)/GaN(0001) heterostructure. Journal of Applied Physics, 2018, 123, .   | 2.5 | 1         |
| 17 | Nitride Single Photon Sources. , 2018, , .   |     | 0         |
| 18 | Porous AlGaIn-Based Ultraviolet Distributed Bragg Reflectors. Materials, 2018, 11, 1487.   | 2.9 | 15        |

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|----|---|------|-----------|
| 19 | Improvement of single photon emission from InGaN QDs embedded in porous micropillars. Applied Physics Letters, 2018, 113, .   | 3.3  | 19        |
| 20 | On-Chip Thermal Insulation Using Porous GaN. Proceedings (mdpi), 2018, 2, .   | 0.2  | 4         |
| 21 | Ultra-low-threshold InGaN/GaN quantum dot micro-ring lasers. Optics Letters, 2018, 43, 799.   | 3.3  | 31        |
| 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 | 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        |
| 24 | High-temperature performance of non-polar (11 $\bar{2}0$ ) InGaN quantum dots grown by a quasi-two-temperature method. Physica Status Solidi (B): Basic Research, 2017, 254, 1600724. | 1.5  | 5         |
| 25 | Defects in III-nitride microdisk cavities. Semiconductor Science and Technology, 2017, 32, 033002.  | 2.0  | 5         |
| 26 | Deterministic optical polarisation in nitride quantum dots at thermoelectrically cooled temperatures. Scientific Reports, 2017, 7, 12067.   | 3.3  | 11        |
| 27 | Direct generation of linearly polarized single photons with a deterministic axis in quantum dots. Nanophotonics, 2017, 6, 1175-1183.  | 6.0  | 11        |
| 28 | Wafer-scale Fabrication of Non-Polar Mesoporous GaN Distributed Bragg Reflectors via Electrochemical Porosification. Scientific Reports, 2017, 7, 45344.                              | 3.3  | 47        |
| 29 | Temperature-dependent fine structure splitting in InGaN quantum dots. Applied Physics Letters, 2017, 111, .   | 3.3  | 4         |
| 30 | Properties of GaN nanowires with Sc <sub>x</sub> Ga <sub>1-x</sub> N insertion. Physica Status Solidi (B): Basic Research, 2017, 254, 1600740.  | 1.5  | 0         |
| 31 | Polarisation-controlled single photon emission at high temperatures from InGaN quantum dots. Nanoscale, 2017, 9, 9421-9427.   | 5.6  | 29        |
| 32 | Functional conductive nanomaterials via polymerisation in nano-channels: PEDOT in a MOF. Materials Horizons, 2017, 4, 64-71.  | 12.2 | 60        |
| 33 | Highly polarized electrically driven single-photon emission from a non-polar InGaN quantum dot. Applied Physics Letters, 2017, 111, .   | 3.3  | 7         |
| 34 | Toward defect-free semi-polar GaN templates on pre-structured sapphire. Physica Status Solidi (B): Basic Research, 2016, 253, 834-839.  | 1.5  | 5         |
| 35 | Ultrafast, Polarized, Single-Photon Emission from m-Plane InGaN Quantum Dots on GaN Nanowires. Nano Letters, 2016, 16, 7779-7785.   | 9.1  | 26        |
| 36 | Comparative studies of efficiency droop in polar and non-polar InGaN quantum wells. Applied Physics Letters, 2016, 108, .   | 3.3  | 18        |

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|----|--|-----|-----------|
| 37 | The microstructure of non-polar a-plane (112 $\bar{0}$ ) InGa $\bar{N}$ quantum wells. Journal of Applied Physics, 2016, 119, .  | 2.5 | 22        |
| 38 | Radiative recombination mechanisms in polar and non-polar InGa $\bar{N}$ /Ga $\bar{N}$ quantum well LED structures. Applied Physics Letters, 2016, 109, .  | 3.3 | 41        |
| 39 | Local carrier recombination and associated dynamics in c-plane InGa $\bar{N}$ /Ga $\bar{N}$ quantum wells probed by picosecond cathodoluminescence. Applied Physics Letters, 2016, 109, .                    | 3.3 | 9         |
| 40 | Nitride quantum light sources. Europhysics Letters, 2016, 113, 38001.  | 2.0 | 13        |
| 41 | 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         |
| 42 | Toward defect-free semi-polar Ga $\bar{N}$ templates on pre-structured sapphire (Phys. Status Solidi B 5/2016). Physica Status Solidi (B): Basic Research, 2016, 253, 1024-1024.                             | 1.5 | 0         |
| 43 | Structural and optical properties of (112 $\bar{1}$ ...2) InGa $\bar{N}$ quantum wells compared to (0001) and (112 $\bar{1}$ ...0). Semiconductor Science and Technology, 2016, 31, 085007.                  | 2.0 | 5         |
| 44 | Structure and composition of non-polar (11 $\bar{2}$ 0) InGa $\bar{N}$ nanorings grown by modified droplet epitaxy. Physica Status Solidi (B): Basic Research, 2016, 253, 840-844.                           | 1.5 | 1         |
| 45 | Origins of hillock defects on Ga $\bar{N}$ templates grown on Si(111). Journal of Crystal Growth, 2016, 434, 123-127.  | 1.5 | 4         |
| 46 | Growth of non-polar InGa $\bar{N}$ quantum dots with an underlying AlN/Ga $\bar{N}$ distributed Bragg reflector by metal-organic vapour phase epitaxy. Superlattices and Microstructures, 2015, 88, 480-488. | 3.1 | 4         |
| 47 | Optical studies of non-polar a-plane () InGa $\bar{N}$ /Ga $\bar{N}$ multi-quantum wells grown on freestanding bulk Ga $\bar{N}$ . Physica Status Solidi (B): Basic Research, 2015, 252, 965-970.            | 1.5 | 14        |
| 48 | Terahertz electromodulation spectroscopy of electron transport in Ga $\bar{N}$ . Applied Physics Letters, 2015, 106, 092107.   | 3.3 | 7         |
| 49 | Microstructural dependency of optical properties of c-plane InGa $\bar{N}$ multiple quantum wells grown on 2 $\bar{A}$ misoriented bulk Ga $\bar{N}$ substrates. Applied Physics Letters, 2015, 107, .       | 3.3 | 5         |
| 50 | Effect of Threading Dislocations on the Quality Factor of InGa $\bar{N}$ /Ga $\bar{N}$ Microdisk Cavities. ACS Photonics, 2015, 2, 137-143.  | 6.6 | 32        |
| 51 | SCM and SIMS investigations of unintentional doping in III-nitrides. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 403-407.  | 0.8 | 8         |
| 52 | Indium clustering in c-plane InGa $\bar{N}$ quantum wells as evidenced by atom probe tomography. Applied Physics Letters, 2015, 106, .   | 3.3 | 46        |
| 53 | Non-polar InGa $\bar{N}$ quantum dot emission with crystal-axis oriented linear polarization. Applied Physics Letters, 2015, 106, .  | 3.3 | 12        |
| 54 | Ultra-low threshold gallium nitride photonic crystal nanobeam laser. Applied Physics Letters, 2015, 106, .   | 3.3 | 25        |

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|----|--|-----|-----------|
| 55 | Low defect large area semi-polar (112) GaN grown on patterned (113) silicon. Physica Status Solidi (B): Basic Research, 2015, 252, 1104-1108.  | 1.5 | 16        |
| 56 | Observations of Rabi oscillations in a non-polar InGaN quantum dot. Applied Physics Letters, 2014, 104, 263108.  | 3.3 | 16        |
| 57 | Evaluation of growth methods for the heteroepitaxy of non-polar c-plane GaN on sapphire by MOVPE. Journal of Crystal Growth, 2014, 408, 32-41.   | 1.5 | 12        |
| 58 | 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        |
| 59 | Non-polar (11-20) InGaN quantum dots with short exciton lifetimes grown by metal-organic vapour phase epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 698-701.  | 0.8 | 4         |
| 60 | High temperature stability in non-polar (11-20) InGaN quantum dots: Exciton and biexciton dynamics. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 702-705.             | 0.8 | 17        |
| 61 | 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        |
| 62 | 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        |
| 63 | Surface morphology of homoepitaxial c-plane GaN: Hillocks and ridges. Journal of Crystal Growth, 2013, 383, 12-18.   | 1.5 | 31        |
| 64 | Correlations between the morphology and emission properties of trench defects in InGaN/GaN quantum wells. Journal of Applied Physics, 2013, 113, .   | 2.5 | 34        |
| 65 | 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         |
| 66 | 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        |
| 67 | Low threshold, room-temperature microdisk lasers in the blue spectral range. Applied Physics Letters, 2013, 103, .   | 3.3 | 62        |
| 68 | Defect Reduction in Semi-Polar (112̄,2) Gallium Nitride Grown Using Epitaxial Lateral Overgrowth. Japanese Journal of Applied Physics, 2013, 52, 08JB01.   | 1.5 | 9         |
| 69 | 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        |
| 70 | Origins of Spectral Diffusion in the Micro-Photoluminescence of Single InGaN Quantum Dots. Japanese Journal of Applied Physics, 2013, 52, 08JE01.  | 1.5 | 15        |
| 71 | 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        |
| 72 | Growth and optical characterisation of multilayers of InGaN quantum dots. Journal of Crystal Growth, 2012, 338, 262-266.   | 1.5 | 13        |

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|----|---|-----|-----------|
| 73 | Unintentional doping in GaN. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 9558.   | 2.8 | 51        |
| 74 | Defects in a-GaN grown on r-sapphire by hydride vapor phase epitaxy. <i>Journal of Crystal Growth</i> , 2011, 327, 6-12.  | 1.5 | 6         |
| 75 | The impact of ScOxNy interlayers on unintentional doping and threading dislocations in GaN. <i>Journal of Physics: Conference Series</i> , 2010, 209, 012067.   | 0.4 | 2         |
| 76 | The effects of annealing on non-polar (1 1 2 $\hat{A}$ <sup>-</sup> 0) a-plane GaN films. <i>Journal of Crystal Growth</i> , 2010, 312, 3536-3543.  | 1.5 | 8         |
| 77 | Dislocation reduction in GaN grown on Si(111) using a strain-driven 3D GaN interlayer. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 1753-1756.   | 1.5 | 7         |
| 78 | Quantification of unintentional doping in non-polar GaN using scanning capacitance microscopy. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1875-1877.                          | 0.8 | 0         |
| 79 | Microstructural, optical, and electrical characterization of semipolar (112 $\hat{A}$ <sup>-</sup> 2) gallium nitride grown by epitaxial lateral overgrowth. <i>Journal of Applied Physics</i> , 2010, 108, 083521. | 2.5 | 27        |
| 80 | Microstructural origins of localization in InGaN quantum wells. <i>Journal Physics D: Applied Physics</i> , 2010, 43, 354003.   | 2.8 | 78        |
| 81 | Characterization of unintentional doping in nonpolar GaN. <i>Journal of Applied Physics</i> , 2010, 107, 023503.  | 2.5 | 13        |
| 82 | Low-temperature time-resolved cathodoluminescence study of exciton dynamics involving basal stacking faults in a-plane GaN. <i>Applied Physics Letters</i> , 2009, 94, .  | 3.3 | 44        |
| 83 | Exciton localization on basal stacking faults in a-plane epitaxial lateral overgrown GaN grown by hydride vapor phase epitaxy. <i>Journal of Applied Physics</i> , 2009, 105, 043102.                               | 2.5 | 69        |
| 84 | Nonpolar GaN-based microcavity using AlN $\hat{A}$ <sup>-</sup> GaN distributed Bragg reflector. <i>Applied Physics Letters</i> , 2008, 92, 061114.   | 3.3 | 12        |
| 85 | Dry etch release processes for micromachining applications. <i>Journal of Vacuum Science &amp; Technology B</i> , 2007, 25, 2553.   | 1.3 | 19        |
| 86 | Blue lasing at room temperature in high quality factor GaN $\hat{A}$ <sup>-</sup> AlInN microdisks with InGaN quantum wells. <i>Applied Physics Letters</i> , 2007, 90, 061106.                                     | 3.3 | 52        |