

Qi Wang

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

82
papers

1,552
citations

18
h-index

38
g-index

93
ext. papers

1,810
ext. citations

3.9
avg, IF

4.35
L-index

| # | Paper | IF | Citations |
|----|--|------|-----------|
| 82 | Ultralow-threshold electrically injected AlGa _N nanowire ultraviolet lasers on Si operating at low temperature. <i>Nature Nanotechnology</i> , 2015 , 10, 140-4 | 28.7 | 210 |
| 81 | Tuning the surface Fermi level on p-type gallium nitride nanowires for efficient overall water splitting. <i>Nature Communications</i> , 2014 , 5, 3825 | 17.4 | 191 |
| 80 | Aluminum nitride nanowire light emitting diodes: Breaking the fundamental bottleneck of deep ultraviolet light sources. <i>Scientific Reports</i> , 2015 , 5, 8332 | 4.9 | 148 |
| 79 | Breaking the carrier injection bottleneck of phosphor-free nanowire white light-emitting diodes. <i>Nano Letters</i> , 2013 , 13, 5437-42 | 11.5 | 117 |
| 78 | Growth of large-scale vertically aligned GaN nanowires and their heterostructures with high uniformity on SiO ₂ (x) by catalyst-free molecular beam epitaxy. <i>Nanoscale</i> , 2013 , 5, 5283-7 | 7.7 | 75 |
| 77 | Engineering the carrier dynamics of InGa _N nanowire white light-emitting diodes by distributed p-AlGa _N electron blocking layers. <i>Scientific Reports</i> , 2015 , 5, 7744 | 4.9 | 74 |
| 76 | Influence of strain relaxation on the optical properties of InGa _N /Ga _N multiple quantum well nanorods. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 395102 | 3 | 60 |
| 75 | 1.55 μm InAs/GaAs quantum dots and high repetition rate quantum dot SESAM mode-locked laser. <i>Scientific Reports</i> , 2012 , 2, 477 | 4.9 | 52 |
| 74 | Characterization of InGa _N -based nanorod light emitting diodes with different indium compositions. <i>Journal of Applied Physics</i> , 2012 , 111, 113103 | 2.5 | 51 |
| 73 | Highly efficient, spectrally pure 340 nm ultraviolet emission from Al _x Ga _{1-x} N nanowire based light emitting diodes. <i>Nanotechnology</i> , 2013 , 24, 345201 | 3.4 | 48 |
| 72 | Growth and optical investigation of self-assembled InGa _N quantum dots on a Ga _N surface using a high temperature AlN buffer. <i>Journal of Applied Physics</i> , 2008 , 103, 123522 | 2.5 | 38 |
| 71 | High efficiency ultraviolet emission from Al _x Ga _{1-x} N core-shell nanowire heterostructures grown on Si (111) by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2012 , 101, 043115 | 3.4 | 36 |
| 70 | Optical properties of strain-free AlN nanowires grown by molecular beam epitaxy on Si substrates. <i>Applied Physics Letters</i> , 2014 , 104, 223107 | 3.4 | 35 |
| 69 | Greatly improved performance of 340nm light emitting diodes using a very thin Ga _N interlayer on a high temperature AlN buffer layer. <i>Applied Physics Letters</i> , 2006 , 89, 081126 | 3.4 | 30 |
| 68 | . <i>IEEE Journal of Quantum Electronics</i> , 2014 , 50, 483-490 | 2 | 29 |
| 67 | Greatly enhanced performance of InGa _N /Ga _N nanorod light emitting diodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012 , 209, 477-480 | 1.6 | 25 |
| 66 | Optical and microstructural study of a single layer of InGa _N quantum dots. <i>Journal of Applied Physics</i> , 2009 , 105, 053505 | 2.5 | 23 |

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| 65 | p-Type dopant incorporation and surface charge properties of catalyst-free GaN nanowires revealed by micro-Raman scattering and X-ray photoelectron spectroscopy. <i>Nanoscale</i> , 2014 , 6, 9970-6 | 7.7 | 21 |
| 64 | Influence of annealing temperature on optical properties of InGaN quantum dot based light emitting diodes. <i>Applied Physics Letters</i> , 2008 , 93, 081915 | 3.4 | 17 |
| 63 | Two coexisting mechanisms of dislocation reduction in an AlGaIn layer grown using a thin GaN interlayer. <i>Applied Physics Letters</i> , 2007 , 91, 131903 | 3.4 | 16 |
| 62 | Phosphor-Free InGaIn/GaN Dot-in-a-Wire White Light-Emitting Diodes on Copper Substrates. <i>Journal of Electronic Materials</i> , 2014 , 43, 868-872 | 1.9 | 15 |
| 61 | Generation of misfit dislocations in highly mismatched GaN/AlN layers. <i>Surface Science</i> , 2008 , 602, 2643-2646 | 2.6 | 14 |
| 60 | On the efficiency droop of top-down etched InGaIn/GaN nanorod light emitting diodes under optical pumping. <i>AIP Advances</i> , 2013 , 3, 082103 | 1.5 | 13 |
| 59 | Stimulated emission at 340 nm from AlGaIn multiple quantum well grown using high temperature AlN buffer technologies on sapphire. <i>Applied Physics Letters</i> , 2009 , 95, 161904 | 3.4 | 13 |
| 58 | The influence of a capping layer on optical properties of self-assembled InGaIn quantum dots. <i>Journal of Applied Physics</i> , 2007 , 101, 113520-113520 | 2.5 | 12 |
| 57 | Tunable LED Lighting With Five Channels of RGCWW for High Circadian and Visual Performances. <i>IEEE Photonics Journal</i> , 2019 , 11, 1-12 | 1.8 | 12 |
| 56 | Investigation on strain relaxation distribution in GaN-based LEDs by Kelvin probe force microscopy and micro-photoluminescence. <i>Optics Express</i> , 2018 , 26, 5265-5274 | 3.3 | 11 |
| 55 | Observation of phonon sideband emission in intrinsic InN nanowires: a photoluminescence and micro-Raman scattering study. <i>Nanotechnology</i> , 2012 , 23, 415706 | 3.4 | 11 |
| 54 | A diode-pumped 1.5 Th waveguide laser mode-locked at 6.8 GHz by a quantum dot SESAM. <i>Laser Physics Letters</i> , 2013 , 10, 105803 | 1.5 | 11 |
| 53 | Operating behavior of micro-LEDs on a GaN substrate at ultrahigh injection current densities. <i>Optics Express</i> , 2019 , 27, A1146-A1155 | 3.3 | 11 |
| 52 | Investigation on entraining and enhancing human circadian rhythm in closed environments using daylight-like LED mixed lighting. <i>Science of the Total Environment</i> , 2020 , 732, 139334 | 10.2 | 11 |
| 51 | High-Performance MoS Photodetectors Prepared Using a Patterned Gallium Nitride Substrate. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 15820-15826 | 9.5 | 11 |
| 50 | Influence of crystal quality of underlying GaN buffer on the formation and optical properties of InGaIn/GaN quantum dots. <i>Applied Physics Letters</i> , 2009 , 95, 101909 | 3.4 | 10 |
| 49 | Polarization-resolved electroluminescence study of InGaIn/GaN dot-in-a-wire light-emitting diodes grown by molecular beam epitaxy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015 , 212, 941-946 | 1.6 | 9 |
| 48 | (Invited) High Power Phosphor-Free InGaIn/GaN/AlGaIn Core-Shell Nanowire White Light Emitting Diodes on Si Substrates. <i>ECS Transactions</i> , 2014 , 61, 9-15 | 1 | 9 |

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| 47 | Deep ultraviolet micro-LEDs exhibiting high output power and high modulation bandwidth simultaneously.. <i>Advanced Materials</i> , 2022 , e2109765 | 24 | 8 |
| 46 | Optical and microstructural studies of InGaN/GaN quantum dot ensembles. <i>Applied Physics Letters</i> , 2009 , 95, 111903 | 3-4 | 6 |
| 45 | The 310nm/40 nm ultraviolet light emitting diodes grown using a thin GaN interlayer on a high temperature AlN buffer. <i>Journal Physics D: Applied Physics</i> , 2008 , 41, 094003 | 3 | 6 |
| 44 | Low blue light hazard for tunable white light emitting diode with high color fidelity and circadian performances. <i>Optics and Laser Technology</i> , 2021 , 135, 106709 | 4-2 | 6 |
| 43 | Microstructure evolution of oxidized Ni/Au ohmic contacts to p-GaN studied by X-ray diffraction. <i>Materials Science in Semiconductor Processing</i> , 2005 , 8, 515-519 | 4-3 | 5 |
| 42 | Effects of the artificial Ga-nitride/air periodic nanostructures on current injected GaN-based light emitters. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 2858-2861 | | 5 |
| 41 | Investigation of Modulation Bandwidth of InGaN Green Micro-LEDs by Varying Quantum Barrier Thickness. <i>IEEE Transactions on Electron Devices</i> , 2022 , 1-8 | 2-9 | 4 |
| 40 | Four-inch high quality crack-free AlN layer grown on a high-temperature annealed AlN template by MOCVD. <i>Journal of Semiconductors</i> , 2021 , 42, 122804 | 2-3 | 4 |
| 39 | The influence of V/III ratio on GaN grown on patterned sapphire substrate with low temperature AlN buffer layer by hydride vapor phase epitaxy. <i>Journal of Crystal Growth</i> , 2018 , 500, 85-90 | 1-6 | 3 |
| 38 | Investigation of the optical properties of InGaN/GaN nanorods with different indium composition. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012 , 9, 620-623 | | 3 |
| 37 | A Data-Mining-Assisted Design of Structural Colors on Diamond Metasurfaces. <i>Advanced Photonics Research</i> , 2100292 | 1-9 | 3 |
| 36 | The effects of dynamic daylight-like light on the rhythm, cognition, and mood of irregular shift workers in closed environment. <i>Scientific Reports</i> , 2021 , 11, 13059 | 4-9 | 3 |
| 35 | Optimization of the dynamic light source considering human age effect on visual and non-visual performances. <i>Optics and Laser Technology</i> , 2022 , 145, 107463 | 4-2 | 3 |
| 34 | Study on Electron-Induced Surface Plasmon Coupling with Quantum Well Using a Perturbation Method. <i>Nanomaterials</i> , 2020 , 10, | 5-4 | 2 |
| 33 | Impact of Surface Recombination on the Performance of Phosphor-Free InGaN/GaN Nanowire White Light Emitting Diodes 2014 , | | 2 |
| 32 | Investigation on many-body effects in micro-LEDs under ultra-high injection levels. <i>Optics Express</i> , 2021 , 29, 13219-13230 | 3-3 | 2 |
| 31 | Improvement of Radiative Recombination Rate and Efficiency Droop of InGaN Light Emitting Diodes with In-Component-Graded InGaN Barrier. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2100351 | 1-6 | 2 |
| 30 | 1.7-kV Vertical GaN-on-GaN Schottky Barrier Diodes With Helium-Implanted Edge Termination. <i>IEEE Transactions on Electron Devices</i> , 2022 , 69, 1938-1944 | 2-9 | 2 |

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| 29 | High-power phosphor-free InGaN/AlGaIn dot-in-a-wire core-shell white light-emitting diodes 2015 , | | 1 |
| 28 | A Novel Nanorod Self-Assembled WOODROW Spherical Structure: Preparation and Flexible Gas Sensor. <i>Journal of Nanoscience and Nanotechnology</i> , 2020 , 20, 4746-4752 | 1.3 | 1 |
| 27 | Effect of dipole polarization orientation on surface plasmon coupling with green emitting quantum wells by cathodoluminescence.. <i>RSC Advances</i> , 2018 , 8, 16370-16377 | 3.7 | 1 |
| 26 | Impact of nanowire geometry on the carrier transport in GaN/InGaIn axial nanowire light-emitting diodes. <i>Journal of Engineering</i> , 2015 , 2015, 299-301 | 0.7 | 1 |
| 25 | Enhanced internal quantum efficiency of an InGaIn/GaN quantum well as a function of silver thickness due to surface plasmon coupling. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 2176-2178 | | 1 |
| 24 | 10 GHz Pulse Repetition Rate ERGO Laser Modelocked by a 1550 nm InAs/GaAs Quantum-Dot SESAM 2012 , | | 1 |
| 23 | The Ga-Nitride/air Two-Dimensional Photonic Quasi-crystals Fabricated on GaN-based Light Emitters. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 831, 597 | | 1 |
| 22 | Ultra-thin AlGaIn/GaN HFET with a high breakdown voltage on sapphire substrates. <i>Applied Physics Letters</i> , 2021 , 119, 252101 | 3.4 | 1 |
| 21 | A review of key technologies for epitaxy and chip process of micro light-emitting diodes in display application. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020 , 69, 198501 | 0.6 | 1 |
| 20 | Improving device performance of perovskite solar cells by micro-nanoscale composite mesoporous TiO ₂ . <i>Japanese Journal of Applied Physics</i> , 2018 , 57, 02CE01 | 1.4 | 1 |
| 19 | Enhanced light extraction efficiency of an LED package by a surface-mounted amorphous photonic structure. <i>Optics Express</i> , 2021 , 29, 31594-31606 | 3.3 | 1 |
| 18 | Utilization of far-red LED to minimize blue light hazard for dynamic semiconductor lighting. <i>LEUKOS - Journal of Illuminating Engineering Society of North America</i> , 1-18 | 3.5 | 1 |
| 17 | Fabrication of a thermostable Ga-face GaIn template on a molybdenum substrate via layer transfer. <i>Optical Materials Express</i> , 2020 , 10, 2447 | 2.6 | 0 |
| 16 | Performance improvement of InGaIn LEDs by using strain compensated last quantum barrier and electron blocking layer. <i>Optik</i> , 2021 , 248, 168216 | 2.5 | 0 |
| 15 | Fabrication of 2-Inch Free-Standing GaIn Substrate on Sapphire With a Combined Buffer Layer by HVPE. <i>Frontiers in Chemistry</i> , 2021 , 9, 671720 | 5 | 0 |
| 14 | Silicon nitride stress liner impacts on MoS ₂ photodetectors. <i>Journal of Applied Physics</i> , 2021 , 129, 183106.5 | 0.5 | 0 |
| 13 | The Effect of Nanometer-Scale V-Pit Layer on the Carrier Recombination Mechanisms and Efficiency Droop of GaIn-Based Green Light-Emitting Diodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021 , 218, 2100070 | 1.6 | 0 |
| 12 | Multi-channel AlGaIn/GaN Schottky barrier diodes with a half through-hole. <i>Materials Science in Semiconductor Processing</i> , 2021 , 133, 105934 | 4.3 | 0 |

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| 11 | The In-Plane-Two-Folders Symmetric a-Plane AlN Epitaxy on r-Plane Sapphire Substrate. <i>Symmetry</i> , 2022 , 14, 573 | 2.7 | 0 |
| 10 | The Influence of InGaN Interlayer on the Performance of InGaN/GaN Quantum-Well-Based LEDs at High Injections. <i>Chinese Physics Letters</i> , 2015 , 32, 027802 | 1.8 | |
| 9 | 3D-Ising critical behavior in antiperovskite-type ferromagneticlike Mn ₃ GaN. <i>Journal of Applied Physics</i> , 2020 , 127, 073903 | 2.5 | |
| 8 | Axial GaN Nanowire-Based LEDs 2014 , 105-134 | | |
| 7 | MOCVD growth and optical study of InGaN quantum dots and their emitters on a high quality GaN layer grown using a high temperature AlN as buffer. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009 , 6, S582-S585 | | |
| 6 | Compact GaN-based optical inclinometer.. <i>Optics Letters</i> , 2022 , 47, 1238-1241 | 3 | |
| 5 | Optical Properties of InGaN Quantum Dots With and Without a GaN Capping Layer. <i>Springer Proceedings in Physics</i> , 2008 , 21-24 | 0.2 | |
| 4 | Compact GaN-Based Photonic Chip for In Situ Real-Time Monitoring of Low Water Content in Ethanol. <i>ACS Applied Electronic Materials</i> , 2020 , 2, 3502-3507 | 4 | |
| 3 | Structure and luminescence of a-plane GaN on r-plane sapphire substrate modified by Si implantation*. <i>Chinese Physics B</i> , 2021 , 30, 056104 | 1.2 | |
| 2 | A Data-Mining-Assisted Design of Structural Colors on Diamond Metasurfaces. <i>Advanced Photonics Research</i> , 2022 , 3, 2270008 | 1.9 | |
| 1 | AlGaN/GaN Heterostructure Schottky Barrier Diodes with Graded Barrier Layer. <i>Advances in Condensed Matter Physics</i> , 2022 , 2022, 1-7 | 1 | |