

GwÃ©nolÃ© Jacopin

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

3,721
citations

147566

31
h-index

128067

60
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82
all docs

82
docs citations

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times ranked

5664
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Temperature Dependent Exciton Funnel Dynamics in Uniform Strain Gradient Field Observed by Time-Resolved Photoluminescence. <i>Advanced Optical Materials</i> , 2022, 10, 2101969. | 3.6 | 0 |
| 2 | Europium-Implanted AlN Nanowires for Red Light-Emitting Diodes. <i>ACS Applied Nano Materials</i> , 2022, 5, 972-984. | 2.4 | 11 |
| 3 | Surface Recombinations in III-Nitride Micro-LEDs Probed by Photon-Correlation Cathodoluminescence. <i>ACS Photonics</i> , 2022, 9, 173-178. | 3.2 | 13 |
| 4 | DX center formation in highly Si doped AlN nanowires revealed by trap assisted space-charge limited current. <i>Applied Physics Letters</i> , 2022, 120, 162104. | 1.5 | 5 |
| 5 | Influence of the Growth Substrate on the Internal Quantum Efficiency of AlGaIn/AlN Multiple Quantum Wells Governed by Carrier Localization. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000464. | 0.7 | 1 |
| 6 | Molecular Origin of the Asymmetric Photoluminescence Spectra of CsPbBr ₃ at Low Temperature. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2699-2704. | 2.1 | 12 |
| 7 | Eu ³⁺ optical activation engineering in Al Ga _{1-x} N nanowires for red solid-state nano-emitters. <i>Applied Materials Today</i> , 2021, 22, 100893. | 2.3 | 4 |
| 8 | Dual-Color Emission from Monolithic <i>m</i> -Plane Core-Shell InGaIn/GaN Quantum Wells. <i>Advanced Photonics Research</i> , 2021, 2, 2000148. | 1.7 | 5 |
| 9 | Nanoscale Dopant Profiling of Individual Semiconductor Wires by Capacitance-Voltage Measurement. <i>Nano Letters</i> , 2021, 21, 3372-3378. | 4.5 | 3 |
| 10 | Toward Crack-Free Core-Shell GaN/AlGaIn Quantum Wells. <i>Crystal Growth and Design</i> , 2021, 21, 6504-6511. | 1.4 | 7 |
| 11 | Characterisation of Semiconductor Nanowires by Electron Beam Induced Microscopy and Cathodoluminescence. , 2021, , 251-288. | | 0 |
| 12 | Shallow donor and DX state in Si doped AlN nanowires grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2021, 119, . | 1.5 | 4 |
| 13 | UV Emission from GaN Wires with <i>m</i> -Plane Core-Shell GaN/AlGaIn Multiple Quantum Wells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 44007-44016. | 4.0 | 16 |
| 14 | Carrier dynamics near a crack in GaN microwires with AlGaIn multiple quantum wells. <i>Applied Physics Letters</i> , 2020, 117, . | 1.5 | 10 |
| 15 | Impact of defects on Auger recombination in <i>c</i> -plane InGaIn/GaN single quantum well in the efficiency droop regime. <i>Applied Physics Letters</i> , 2020, 116, . | 1.5 | 14 |
| 16 | Role of Underlayer for Efficient Core-Shell InGaIn QWs Grown on <i>m</i> -plane GaN Wire Sidewalls. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 19092-19101. | 4.0 | 18 |
| 17 | Cyclopentadithiophene-Based Hole-Transporting Material for Highly Stable Perovskite Solar Cells with Stabilized Efficiencies Approaching 21%. <i>ACS Applied Energy Materials</i> , 2020, 3, 7456-7463. | 2.5 | 26 |
| 18 | Mg and In Codoped p-type AlN Nanowires for pn Junction Realization. <i>Nano Letters</i> , 2019, 19, 8357-8364. | 4.5 | 25 |

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|----|--|-----|-----------|
| 19 | Role of Ga Surface Diffusion in the Elongation Mechanism and Optical Properties of Catalyst-Free GaN Nanowires Grown by Molecular Beam Epitaxy. Nano Letters, 2019, 19, 4250-4256. | 4.5 | 15 |
| 20 | Electroluminescence of Single InGaN/GaN Micropyramids. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 | 0.2 | 1 |
| 21 | Polarity conversion of GaN nanowires grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2019, 114, . | 1.5 | 8 |
| 22 | Impact of alloy disorder on Auger recombination in single InGaN/GaN core-shell microrods. Physical Review B, 2019, 100, . | 1.1 | 6 |
| 23 | Spatially dependent carrier dynamics in single InGaN/GaN core-shell microrod by time-resolved cathodoluminescence. Applied Physics Letters, 2018, 112, . | 1.5 | 19 |
| 24 | Optical absorption and oxygen passivation of surface states in III-nitride photonic devices. Journal of Applied Physics, 2018, 123, . | 1.1 | 23 |
| 25 | GaN surface as the source of non-radiative defects in InGaN/GaN quantum wells. Applied Physics Letters, 2018, 113, . | 1.5 | 93 |
| 26 | Near-UV narrow bandwidth optical gain in lattice-matched IIIâ€™nitride waveguides. Japanese Journal of Applied Physics, 2018, 57, 090305. | 0.8 | 3 |
| 27 | Insights about the Absence of Rb Cation from the 3D Perovskite Lattice: Effect on the Structural, Morphological, and Photophysical Properties and Photovoltaic Performance. Small, 2018, 14, e1802033. | 5.2 | 24 |
| 28 | Function Follows Form: Correlation between the Growth and Local Emission of Perovskite Structures and the Performance of Solar Cells. Advanced Functional Materials, 2017, 27, 1701433. | 7.8 | 26 |
| 29 | Enhancement of Auger recombination induced by carrier localization in InGaN/GaN quantum wells. Physical Review B, 2017, 95, . | 1.1 | 41 |
| 30 | Propagating Polaritons in III-Nitride Slab Waveguides. Physical Review Applied, 2017, 7, . | 1.5 | 32 |
| 31 | Burying non-radiative defects in InGaN underlayer to increase InGaN/GaN quantum well efficiency. Applied Physics Letters, 2017, 111, . | 1.5 | 99 |
| 32 | Exciton dynamics at a single dislocation in GaN probed by picosecond time-resolved cathodoluminescence. Applied Physics Letters, 2016, 109, . | 1.5 | 49 |
| 33 | Optical properties of nearly lattice-matched GaN/(Al,In)N quantum wells. Journal of Applied Physics, 2016, 119, 205708. | 1.1 | 1 |
| 34 | High Open-Circuit Voltage: Fabrication of Formamidinium Lead Bromide Perovskite Solar Cells Using Fluoreneâ€™Dithiophene Derivatives as Hole-Transporting Materials. ACS Energy Letters, 2016, 1, 107-112. | 8.8 | 105 |
| 35 | Nanometer-scale monitoring of quantum-confined Stark effect and emission efficiency droop in multiple GaN/AlN quantum disks in nanowires. Physical Review B, 2016, 93, . | 1.1 | 17 |
| 36 | Carrier-density-dependent recombination dynamics of excitons and electron-hole plasma in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>m</mml:mi></mml:math> -plane InGaN/GaN quantum wells. Physical Review B, 2016, 94, . | 1.1 | 41 |

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|----|---|------|-----------|
| 37 | Intrinsic and Extrinsic Stability of Formamidinium Lead Bromide Perovskite Solar Cells Yielding High Photovoltage. Nano Letters, 2016, 16, 7155-7162. | 4.5 | 104 |
| 38 | Origin of unusual bandgap shift and dual emission in organic-inorganic lead halide perovskites. Science Advances, 2016, 2, e1601156. | 4.7 | 307 |
| 39 | Photovoltaic and Amplified Spontaneous Emission Studies of High-Quality Formamidinium Lead Bromide Perovskite Films. Advanced Functional Materials, 2016, 26, 2846-2854. | 7.8 | 66 |
| 40 | Asymmetric Cathodoluminescence Emission in CH ₃ NH ₃ PbI ₃ Perovskite Single Crystals. ACS Photonics, 2016, 3, 947-952. | 3.2 | 30 |
| 41 | A Novel Dopant-Free Triphenylamine Based Molecular "Butterfly" Hole-Transport Material for Highly Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600401. | 10.2 | 161 |
| 42 | Excitonic Diffusion in InGaN/GaN Core-Shell Nanowires. Nano Letters, 2016, 16, 243-249. | 4.5 | 31 |
| 43 | Pulsed laser deposition growth of 3D ZnO nanowall network in nest-like structures by two-step approach. Solar Energy Materials and Solar Cells, 2015, 143, 539-545. | 3.0 | 17 |
| 44 | Exciton hopping probed by picosecond time-resolved cathodoluminescence. Applied Physics Letters, 2015, 107, . | 1.5 | 9 |
| 45 | Color control of nanowire InGaN/GaN light emitting diodes by post-growth treatment. Nanotechnology, 2015, 26, 465203. | 1.3 | 22 |
| 46 | Core-shell InGaN/GaN nanowire light emitting diodes analyzed by electron beam induced current microscopy and cathodoluminescence mapping. Nanoscale, 2015, 7, 11692-11701. | 2.8 | 70 |
| 47 | Triazatruxene-Based Hole Transporting Materials for Highly Efficient Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 16172-16178. | 6.6 | 321 |
| 48 | Hopping process of bound excitons under an energy gradient. Applied Physics Letters, 2014, 104, 042109. | 1.5 | 10 |
| 49 | High-temperature Mott transition in wide-band-gap semiconductor quantum wells. Physical Review B, 2014, 90, . | 1.1 | 43 |
| 50 | InGaN/GaN Core-Shell Single Nanowire Light Emitting Diodes with Graphene-Based P-Contact. Nano Letters, 2014, 14, 2456-2465. | 4.5 | 173 |
| 51 | Interplay of the photovoltaic and photoconductive operation modes in visible-blind photodetectors based on axial p-i-n junction GaN nanowires. Applied Physics Letters, 2014, 104, . | 1.5 | 30 |
| 52 | Biexcitonic molecules survive excitons at the Mott transition. Nature Communications, 2014, 5, 5251. | 5.8 | 14 |
| 53 | Integrated Photonic Platform Based on InGaN/GaN Nanowire Emitters and Detectors. Nano Letters, 2014, 14, 3515-3520. | 4.5 | 171 |
| 54 | Exciton Drift in Semiconductors under Uniform Strain Gradients: Application to Bent ZnO Microwires. ACS Nano, 2014, 8, 3412-3420. | 7.3 | 64 |

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|----|--|-----|-----------|
| 55 | Coupling atom probe tomography and photoluminescence spectroscopy: Exploratory results and perspectives. Ultramicroscopy, 2013, 132, 75-80. | 0.8 | 16 |
| 56 | Optical properties of GaN-based nanowires containing a single Al _{0.14} Ga _{0.86} N/GaN quantum disc. Nanotechnology, 2013, 24, 125201. | 1.3 | 10 |
| 57 | Characterization and modeling of a ZnO nanowire ultraviolet photodetector with graphene transparent contact. Journal of Applied Physics, 2013, 114, . | 1.1 | 106 |
| 58 | Visualizing highly localized luminescence in GaN/AlN heterostructures in nanowires. Nanotechnology, 2012, 23, 455205. | 1.3 | 31 |
| 59 | Single-Wire Light-Emitting Diodes Based on GaN Wires Containing Both Polar and Nonpolar InGaN/GaN Quantum Wells. Applied Physics Express, 2012, 5, 014101. | 1.1 | 58 |
| 60 | Photovoltaic properties of GaAsP core-shell nanowires on Si(001) substrate. Nanotechnology, 2012, 23, 265402. | 1.3 | 45 |
| 61 | Self-assembled GaN quantum wires on GaN/AlN nanowire templates. Nanoscale, 2012, 4, 7517. | 2.8 | 49 |
| 62 | Photoluminescence polarization in strained GaN/AlGaN core/shell nanowires. Nanotechnology, 2012, 23, 325701. | 1.3 | 25 |
| 63 | Nanometer Scale Spectral Imaging of Quantum Emitters in Nanowires and Its Correlation to Their Atomically Resolved Structure. Nano Letters, 2011, 11, 568-573. | 4.5 | 165 |
| 64 | M-Plane Core-shell InGaN/GaN Multiple-Quantum-Wells on GaN Wires for Electroluminescent Devices. Nano Letters, 2011, 11, 4839-4845. | 4.5 | 186 |
| 65 | Double strain state in a single GaN/AlN nanowire: Probing the core-shell effect by ultraviolet resonant Raman scattering. Physical Review B, 2011, 83, . | 1.1 | 32 |
| 66 | Correlation of optical and structural properties of GaN/AlN core-shell nanowires. Physical Review B, 2011, 83, . | 1.1 | 60 |
| 67 | Optical properties of wurtzite/zinc-blende heterostructures in GaN nanowires. Journal of Applied Physics, 2011, 110, . | 1.1 | 62 |
| 68 | High degree of polarization of the near-band-edge photoluminescence in ZnO nanowires. Nanoscale Research Letters, 2011, 6, 501. | 3.1 | 15 |
| 69 | Single-wire photodetectors based on InGaN/GaN radial quantum wells in GaN wires grown by catalyst-free metal-organic vapor phase epitaxy. Applied Physics Letters, 2011, 98, . | 1.5 | 63 |
| 70 | Visible-blind photodetector based on p-n junction GaN nanowire ensembles. Nanotechnology, 2010, 21, 315201. | 1.3 | 75 |
| 71 | Structural and optical characterizations of nitrogen-doped ZnO nanowires grown by MOCVD. Materials Letters, 2010, 64, 2112-2114. | 1.3 | 25 |
| 72 | GaN/AlN quantum disc single nanowire photodetectors. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1323-1327. | 0.8 | 10 |

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|----|---|-----|-----------|
| 73 | Optical properties of GaN and GaN/AlN nanowires: the effect of doping and structural defects. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2233-2235. | 0.8 | 7 |
| 74 | Optical characterization of AlGaIn/GaN quantum disc structures in single nanowires. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2243-2245. | 0.8 | 0 |
| 75 | Investigation of the electronic transport in GaN nanowires containing GaN/AlN quantum discs. Nanotechnology, 2010, 21, 425206. | 1.3 | 31 |
| 76 | Origin of energy dispersion in $\text{Al}_x\text{Ga}_{1-x}\text{In}_y\text{N}_{1-y}$ quantum discs with low Al content. Physical Review B, 2010, 82, . | 1.1 | 28 |
| 77 | Ultraviolet Photodetector Based on GaN/AlN Quantum Disks in a Single Nanowire. Nano Letters, 2010, 10, 2939-2943. | 4.5 | 155 |
| 78 | Photoluminescence polarization properties of single GaN nanowires containing $\text{Al}_x\text{Ga}_{1-x}\text{In}_y\text{N}_{1-y}$ discs. Physical Review B, 2010, 81, . | 1.1 | 28 |
| 79 | Photocurrent Spectroscopy and Luminescence of GaN/AlN Quantum Discs in GaN Nanowires. , 2010, , . | | 1 |
| 80 | Si Incorporation in InP Nanowires Grown by Au-Assisted Molecular Beam Epitaxy. Journal of Nanomaterials, 2009, 2009, 1-7. | 1.5 | 11 |