GwÃ©nolÃ© Jacopin

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Triazatruxene-Based Hole Transporting Materials for Highly Efficient Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 16172-16178.	13.7	321
2	Origin of unusual bandgap shift and dual emission in organic-inorganic lead halide perovskites. Science Advances, 2016, 2, e1601156.	10.3	307
3	M-Plane Coreâ€"Shell InGaN/GaN Multiple-Quantum-Wells on GaN Wires for Electroluminescent Devices. Nano Letters, 2011, 11, 4839-4845.	9.1	186
4	InGaN/GaN Coreâ€"Shell Single Nanowire Light Emitting Diodes with Graphene-Based P-Contact. Nano Letters, 2014, 14, 2456-2465.	9.1	173
5	Integrated Photonic Platform Based on InGaN/GaN Nanowire Emitters and Detectors. Nano Letters, 2014, 14, 3515-3520.	9.1	171
6	Nanometer Scale Spectral Imaging of Quantum Emitters in Nanowires and Its Correlation to Their Atomically Resolved Structure. Nano Letters, 2011, 11, 568-573.	9.1	165
7	A Novel Dopantâ€Free Triphenylamine Based Molecular â€œButterflyâ€• Holeâ€Transport Material for Highly Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600401.	19.5	161
8	Ultraviolet Photodetector Based on GaN/AlN Quantum Disks in a Single Nanowire. Nano Letters, 2010, 10, 2939-2943.	9.1	155
9	Characterization and modeling of a ZnO nanowire ultraviolet photodetector with graphene transparent contact. Journal of Applied Physics, 2013, 114, .	2.5	106
10	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.	17.4	105
11	Intrinsic and Extrinsic Stability of Formamidinium Lead Bromide Perovskite Solar Cells Yielding High Photovoltage. Nano Letters, 2016, 16, 7155-7162.	9.1	104
12	Burying non-radiative defects in InGaN underlayer to increase InGaN/GaN quantum well efficiency. Applied Physics Letters, 2017, 111, .	3.3	99
13	GaN surface as the source of non-radiative defects in InGaN/GaN quantum wells. Applied Physics Letters, 2018, 113, .	3.3	93
14	Visible-blind photodetector based on pâ€"iâ€"n junction GaN nanowire ensembles. Nanotechnology, 2010, 21, 315201.	2.6	75
15	Coreâ€"shell InGaN/GaN nanowire light emitting diodes analyzed by electron beam induced current microscopy and cathodoluminescence mapping. Nanoscale, 2015, 7, 11692-11701.	5.6	70
16	Photovoltaic and Amplified Spontaneous Emission Studies of Highâ€Quality Formamidinium Lead Bromide Perovskite Films. Advanced Functional Materials, 2016, 26, 2846-2854.	14.9	66
17	Exciton Drift in Semiconductors under Uniform Strain Gradients: Application to Bent ZnO Microwires. ACS Nano, 2014, 8, 3412-3420.	14.6	64
18	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, .	3.3	63

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19	Optical properties of wurtzite/zinc-blende heterostructures in GaN nanowires. Journal of Applied Physics, 2011, 110, .	2.5	62
20	Correlation of optical and structural properties of GaN/AlN core-shell nanowires. Physical Review B, 2011, 83, .	3.2	60
21	Single-Wire Light-Emitting Diodes Based on GaN Wires Containing Both Polar and Nonpolar InGaN/GaN Quantum Wells. Applied Physics Express, 2012, 5, 014101.	2.4	58
22	Self-assembled GaN quantum wires on GaN/AlN nanowire templates. Nanoscale, 2012, 4, 7517.	5.6	49
23	Exciton dynamics at a single dislocation in GaN probed by picosecond time-resolved cathodoluminescence. Applied Physics Letters, 2016, 109, .	3.3	49
24	Photovoltaic properties of GaAsP coreâ€"shell nanowires on Si(001) substrate. Nanotechnology, 2012, 23, 265402.	2.6	45
25	High-temperature Mott transition in wide-band-gap semiconductor quantum wells. Physical Review B, 2014, 90, .	3.2	43
26	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, .	3.2	41
27	Enhancement of Auger recombination induced by carrier localization in InGaN/GaN quantum wells. Physical Review B, 2017, 95, .	3.2	41
28	Double strain state in a single GaN/AlN nanowire: Probing the core-shell effect by ultraviolet resonant Raman scattering. Physical Review B, 2011, 83, .	3.2	32
29	Propagating Polaritons in III-Nitride Slab Waveguides. Physical Review Applied, 2017, 7, .	3.8	32
30	Investigation of the electronic transport in GaN nanowires containing GaN/AlN quantum discs. Nanotechnology, 2010, 21, 425206.	2.6	31
31	Visualizing highly localized luminescence in GaN/AlN heterostructures in nanowires. Nanotechnology, 2012, 23, 455205.	2.6	31
32	Excitonic Diffusion in InGaN/GaN Coreâ€"Shell Nanowires. Nano Letters, 2016, 16, 243-249.	9.1	31
33	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, .	3.3	30
34	Asymmetric Cathodoluminescence Emission in CH₃NH₃PbI_{3â€"<i>x</i>}Br_{<i>x</i>} Perovskite Single Crystals. ACS Photonics, 2016, 3, 947-952.	6.6	30
35	Origin of energy dispersion in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Al</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub> quantum discs with low Al content. Physical Review B, 2010, 82, .	3.2	29
36	Photoluminescence polarization properties of single GaN nanowires containing<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Al</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub> discs. Physical Review B, 2010, 81, .	3.2	28

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37	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.	14.9	26
38	Cyclopentadithiophene-Based Hole-Transporting Material for Highly Stable Perovskite Solar Cells with Stabilized Efficiencies Approaching 21%. ACS Applied Energy Materials, 2020, 3, 7456-7463.	5.1	26
39	Structural and optical characterizations of nitrogen-doped ZnO nanowires grown by MOCVD. Materials Letters, 2010, 64, 2112-2114.	2.6	25
40	Photoluminescence polarization in strained GaN/AlGaN core/shell nanowires. Nanotechnology, 2012, 23, 325701.	2.6	25
41	Mg and In Codoped p-type AlN Nanowires for pn Junction Realization. Nano Letters, 2019, 19, 8357-8364.	9.1	25
42	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.	10.0	24
43	Optical absorption and oxygen passivation of surface states in III-nitride photonic devices. Journal of Applied Physics, 2018, 123, .	2.5	23
44	Color control of nanowire InGaN/GaN light emitting diodes by post-growth treatment. Nanotechnology, 2015, 26, 465203.	2.6	22
45	Spatially dependent carrier dynamics in single InGaN/GaN core-shell microrod by time-resolved cathodoluminescence. Applied Physics Letters, 2018, 112, .	3.3	19
46	Role of Underlayer for Efficient Coreâ€“Shell InGaN QWs Grown on <i>m</i>-plane GaN Wire Sidewalls. ACS Applied Materials & Interfaces, 2020, 12, 19092-19101.	8.0	18
47	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.	6.2	17
48	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, .	3.2	17
49	Coupling atom probe tomography and photoluminescence spectroscopy: Exploratory results and perspectives. Ultramicroscopy, 2013, 132, 75-80.	1.9	16
50	UV Emission from GaN Wires with <i>m</i>-Plane Coreâ€“Shell GaN/AlGaN Multiple Quantum Wells. ACS Applied Materials & Interfaces, 2020, 12, 44007-44016.	8.0	16
51	High degree of polarization of the near-band-edge photoluminescence in ZnO nanowires. Nanoscale Research Letters, 2011, 6, 501.	5.7	15
52	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.	9.1	15
53	Biexcitonic molecules survive excitons at the Mott transition. Nature Communications, 2014, 5, 5251.	12.8	14
54	Impact of defects on Auger recombination in <i>c</i>-plane InGaN/GaN single quantum well in the efficiency droop regime. Applied Physics Letters, 2020, 116, .	3.3	14

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55	Surface Recombinations in III-Nitride Micro-LEDs Probed by Photon-Correlation Cathodoluminescence. ACS Photonics, 2022, 9, 173-178.	6.6	13
56	Molecular Origin of the Asymmetric Photoluminescence Spectra of CsPbBr₃ at Low Temperature. Journal of Physical Chemistry Letters, 2021, 12, 2699-2704.	4.6	12
57	Si Incorporation in InP Nanowires Grown by Au-Assisted Molecular Beam Epitaxy. Journal of Nanomaterials, 2009, 2009, 1-7.	2.7	11
58	Europium-Implanted AlN Nanowires for Red Light-Emitting Diodes. ACS Applied Nano Materials, 2022, 5, 972-984.	5.0	11
59	GaN/AlN quantum disc singleâ€nanowire photodetectors. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1323-1327.	1.8	10
60	Optical properties of GaN-based nanowires containing a single Al_{0.14}Ga_{0.86}N/GaN quantum disc. Nanotechnology, 2013, 24, 125201.	2.6	10
61	Hopping process of bound excitons under an energy gradient. Applied Physics Letters, 2014, 104, 042109.	3.3	10
62	Carrier dynamics near a crack in GaN microwires with AlGaN multiple quantum wells. Applied Physics Letters, 2020, 117, .	3.3	10
63	Exciton hopping probed by picosecond time-resolved cathodoluminescence. Applied Physics Letters, 2015, 107, .	3.3	9
64	Polarity conversion of GaN nanowires grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2019, 114, .	3.3	8
65	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
66	Toward Crack-Free Coreâ€“Shell GaN/AlGaN Quantum Wells. Crystal Growth and Design, 2021, 21, 6504-6511.	3.0	7
67	Impact of alloy disorder on Auger recombination in single InGaN/GaN core-shell microrods. Physical Review B, 2019, 100, .	3.2	6
68	Dualâ€Color Emission from Monolithic <i>m</i>â€Plane Coreâ€“Shell InGaN/GaN Quantum Wells. Advanced Photonics Research, 2021, 2, 2000148.	3.6	5
69	DX center formation in highly Si doped AlN nanowires revealed by trap assisted space-charge limited current. Applied Physics Letters, 2022, 120, 162104.	3.3	5
70	Eu3+ optical activation engineering in Al Ga1-N nanowires for red solid-state nano-emitters. Applied Materials Today, 2021, 22, 100893.	4.3	4
71	Shallow donor and DX state in Si doped AlN nanowires grown by molecular beam epitaxy. Applied Physics Letters, 2021, 119, .	3.3	4
72	Near-UV narrow bandwidth optical gain in lattice-matched IIIâ€“nitride waveguides. Japanese Journal of Applied Physics, 2018, 57, 090305.	1.5	3

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73	Nanoscale Dopant Profiling of Individual Semiconductor Wires by Capacitanceâ€“Voltage Measurement. Nano Letters, 2021, 21, 3372-3378.	9.1	3
74	Optical properties of nearly lattice-matched GaN/(Al,In)N quantum wells. Journal of Applied Physics, 2016, 119, 205708.	2.5	1
75	Electroluminescence of Single InGaN/GaN Micropyramids. Optics and Spectroscopy (English) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	0.6	1
76	Influence of the Growth Substrate on the Internal Quantum Efficiency of AlGaN/AlN Multiple Quantum Wells Governed by Carrier Localization. Physica Status Solidi (B): Basic Research, 2021, 258, 2000464.	1.5	1
77	Photocurrent Spectroscopy and Luminescence of GaN/AlN Quantum Discs in GaN Nanowires. , 2010, , .		1
78	Optical characterization of AlGaN/GaN quantum disc structures in single nanowires. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2243-2245.	0.8	0
79	Contents: Phys. Status Solidi C 7/7â€8. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1721-1736.	0.8	0
80	Characterisation of Semiconductor Nanowires by Electron Beam Induced Microscopy and Cathodoluminescence. , 2021, , 251-288.		0
81	Temperature Dependent Exciton Funnel Dynamics in Uniform Strain Gradient Field Observed by Timeâ€Resolved Photoluminescence. Advanced Optical Materials, 2022, 10, 2101969.	7.3	0