GwÃ©nolÃ© Jacopin

List of Publications by Year
in descending order

81 papers	3,721 citations	147801 31 h-index	128289 60 g-index
82 all docs	82 docs citations	82 times ranked	5664 citing authors

#	Article	IF	Citations
1	Temperature Dependent Exciton Funnel Dynamics in Uniform Strain Gradient Field Observed by Timeâ€Resolved Photoluminescence. Advanced Optical Materials, 2022, 10, 2101969.	7.3	0
2	Europium-Implanted AlN Nanowires for Red Light-Emitting Diodes. ACS Applied Nano Materials, 2022, 5, 972-984.	5.0	11
3	Surface Recombinations in III-Nitride Micro-LEDs Probed by Photon-Correlation Cathodoluminescence. ACS Photonics, 2022, 9, 173-178.	6.6	13
4	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
5	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
6	Molecular Origin of the Asymmetric Photoluminescence Spectra of CsPbBr₃ at Low Temperature. Journal of Physical Chemistry Letters, 2021, 12, 2699-2704.	4.6	12
7	Eu3+ optical activation engineering in Al Ga1-N nanowires for red solid-state nano-emitters. Applied Materials Today, 2021, 22, 100893.	4.3	4
8	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
9	Nanoscale Dopant Profiling of Individual Semiconductor Wires by Capacitanceâ€"Voltage Measurement. Nano Letters, 2021, 21, 3372-3378.	9.1	3
10	Toward Crack-Free Coreâ€"Shell GaN/AlGaN Quantum Wells. Crystal Growth and Design, 2021, 21, 6504-6511.	3.0	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. Applied Physics Letters, 2021, 119, .	3.3	4
13	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
14	Carrier dynamics near a crack in GaN microwires with AlGaN multiple quantum wells. Applied Physics Letters, 2020, 117, .	3.3	10
15	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
16	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
17	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
18	Mg and In Codoped p-type AlN Nanowires for pn Junction Realization. Nano Letters, 2019, 19, 8357-8364.	9.1	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.	9.1	15
20	Electroluminescence of Single InGaN/GaN Micropyramids. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 T	0.6	1
21	Polarity conversion of GaN nanowires grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2019, 114, .	3.3	8
22	Impact of alloy disorder on Auger recombination in single InGaN/GaN core-shell microrods. Physical Review B, 2019, 100, .	3.2	6
23	Spatially dependent carrier dynamics in single InGaN/GaN core-shell microrod by time-resolved cathodoluminescence. Applied Physics Letters, 2018, 112, .	3.3	19
24	Optical absorption and oxygen passivation of surface states in III-nitride photonic devices. Journal of Applied Physics, 2018, 123, .	2.5	23
25	GaN surface as the source of non-radiative defects in InGaN/GaN quantum wells. Applied Physics Letters, 2018, 113, .	3.3	93
26	Near-UV narrow bandwidth optical gain in lattice-matched IIIâ€“nitride waveguides. Japanese Journal of Applied Physics, 2018, 57, 090305.	1.5	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.	10.0	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.	14.9	26
29	Enhancement of Auger recombination induced by carrier localization in InGaN/GaN quantum wells. Physical Review B, 2017, 95, .	3.2	41
30	Propagating Polaritons in III-Nitride Slab Waveguides. Physical Review Applied, 2017, 7, .	3.8	32
31	Burying non-radiative defects in InGaN underlayer to increase InGaN/GaN quantum well efficiency. Applied Physics Letters, 2017, 111, .	3.3	99
32	Exciton dynamics at a single dislocation in GaN probed by picosecond time-resolved cathodoluminescence. Applied Physics Letters, 2016, 109, .	3.3	49
33	Optical properties of nearly lattice-matched GaN/(Al,In)N quantum wells. Journal of Applied Physics, 2016, 119, 205708.	2.5	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.	17.4	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, .	3.2	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, .	3.2	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.	9.1	104
38	Origin of unusual bandgap shift and dual emission in organic-inorganic lead halide perovskites. Science Advances, 2016, 2, e1601156.	10.3	307
39	Photovoltaic and Amplified Spontaneous Emission Studies of Highâ€Quality Formamidinium Lead Bromide Perovskite Films. Advanced Functional Materials, 2016, 26, 2846-2854.	14.9	66
40	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
41	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
42	Excitonic Diffusion in InGaN/GaN Coreâ€“Shell Nanowires. Nano Letters, 2016, 16, 243-249.	9.1	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.	6.2	17
44	Exciton hopping probed by picosecond time-resolved cathodoluminescence. Applied Physics Letters, 2015, 107, .	3.3	9
45	Color control of nanowire InGaN/GaN light emitting diodes by post-growth treatment. Nanotechnology, 2015, 26, 465203.	2.6	22
46	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
47	Triazatruxene-Based Hole Transporting Materials for Highly Efficient Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 16172-16178.	13.7	321
48	Hopping process of bound excitons under an energy gradient. Applied Physics Letters, 2014, 104, 042109.	3.3	10
49	High-temperature Mott transition in wide-band-gap semiconductor quantum wells. Physical Review B, 2014, 90, .	3.2	43
50	InGaN/GaN Coreâ€“Shell Single Nanowire Light Emitting Diodes with Graphene-Based P-Contact. Nano Letters, 2014, 14, 2456-2465.	9.1	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, .	3.3	30
52	Biexcitonic molecules survive excitons at the Mott transition. Nature Communications, 2014, 5, 5251.	12.8	14
53	Integrated Photonic Platform Based on InGaN/GaN Nanowire Emitters and Detectors. Nano Letters, 2014, 14, 3515-3520.	9.1	171
54	Exciton Drift in Semiconductors under Uniform Strain Gradients: Application to Bent ZnO Microwires. ACS Nano, 2014, 8, 3412-3420.	14.6	64

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55	Coupling atom probe tomography and photoluminescence spectroscopy: Exploratory results and perspectives. Ultramicroscopy, 2013, 132, 75-80.	1.9	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.	2.6	10
57	Characterization and modeling of a ZnO nanowire ultraviolet photodetector with graphene transparent contact. Journal of Applied Physics, 2013, 114, .	2.5	106
58	Visualizing highly localized luminescence in GaN/AlN heterostructures in nanowires. Nanotechnology, 2012, 23, 455205.	2.6	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.	2.4	58
60	Photovoltaic properties of GaAsP coreâ€“shell nanowires on Si(001) substrate. Nanotechnology, 2012, 23, 265402.	2.6	45
61	Self-assembled GaN quantum wires on GaN/AlN nanowire templates. Nanoscale, 2012, 4, 7517.	5.6	49
62	Photoluminescence polarization in strained GaN/AlGaN core/shell nanowires. Nanotechnology, 2012, 23, 325701.	2.6	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.	9.1	165
64	M-Plane Coreâ€“Shell InGaN/GaN Multiple-Quantum-Wells on GaN Wires for Electroluminescent Devices. Nano Letters, 2011, 11, 4839-4845.	9.1	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, .	3.2	32
66	Correlation of optical and structural properties of GaN/AlN core-shell nanowires. Physical Review B, 2011, 83, .	3.2	60
67	Optical properties of wurtzite/zinc-blende heterostructures in GaN nanowires. Journal of Applied Physics, 2011, 110, .	2.5	62
68	High degree of polarization of the near-band-edge photoluminescence in ZnO nanowires. Nanoscale Research Letters, 2011, 6, 501.	5.7	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, .	3.3	63
70	Visible-blind photodetector based on pâ€“iâ€“n junction GaN nanowire ensembles. Nanotechnology, 2010, 21, 315201.	2.6	75
71	Structural and optical characterizations of nitrogen-doped ZnO nanowires grown by MOCVD. Materials Letters, 2010, 64, 2112-2114.	2.6	25
72	GaN/AlN quantum disc singleâ€nanowire photodetectors. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1323-1327.	1.8	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 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
75	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
76	Investigation of the electronic transport in GaN nanowires containing GaN/AlN quantum discs. Nanotechnology, 2010, 21, 425206.	2.6	31
77	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
78	Ultraviolet Photodetector Based on GaN/AlN Quantum Disks in a Single Nanowire. Nano Letters, 2010, 10, 2939-2943.	9.1	155
79	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
80	Photocurrent Spectroscopy and Luminescence of GaN/AlN Quantum Discs in GaN Nanowires. , 2010, , .		1
81	Si Incorporation in InP Nanowires Grown by Au-Assisted Molecular Beam Epitaxy. Journal of Nanomaterials, 2009, 2009, 1-7.	2.7	11