

# Maria Tchernycheva

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/9165458/maria-tchernycheva-publications-by-citations.pdf>  
**Version:** 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.  
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

215 papers	5,834 citations	44 h-index	68 g-index
251 ext. papers	6,341 ext. citations	3.7 avg, IF	5.22 L-index

#	Paper	IF	Citations
215	Systematic experimental and theoretical investigation of intersubband absorption in GaN/AlN quantum wells. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	222
214	M-plane core-shell InGaN/GaN multiple-quantum-wells on GaN wires for electroluminescent devices. <i>Nano Letters</i> , <b>2011</b> , 11, 4839-45	11.5	172
213	InGaN/GaN core-shell single nanowire light emitting diodes with graphene-based p-contact. <i>Nano Letters</i> , <b>2014</b> , 14, 2456-65	11.5	154
212	Nanometer scale spectral imaging of quantum emitters in nanowires and its correlation to their atomically resolved structure. <i>Nano Letters</i> , <b>2011</b> , 11, 568-73	11.5	153
211	GaN/AlN short-period superlattices for intersubband optoelectronics: A systematic study of their epitaxial growth, design, and performance. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 093501	2.5	150
210	Flexible Light-Emitting Diodes Based on Vertical Nitride Nanowires. <i>Nano Letters</i> , <b>2015</b> , 15, 6958-64	11.5	149
209	Integrated photonic platform based on InGaN/GaN nanowire emitters and detectors. <i>Nano Letters</i> , <b>2014</b> , 14, 3515-20	11.5	148
208	Ultraviolet photodetector based on GaN/AlN quantum disks in a single nanowire. <i>Nano Letters</i> , <b>2010</b> , 10, 2939-43	11.5	138
207	Au-assisted molecular beam epitaxy of InAs nanowires: Growth and theoretical analysis. <i>Journal of Applied Physics</i> , <b>2007</b> , 102, 094313	2.5	123
206	GaN nanowire ultraviolet photodetector with a graphene transparent contact. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 201103	3.4	119
205	Growth of GaN free-standing nanowires by plasma-assisted molecular beam epitaxy: structural and optical characterization. <i>Nanotechnology</i> , <b>2007</b> , 18, 385306	3.4	103
204	Growth and characterization of InP nanowires with InAsP insertions. <i>Nano Letters</i> , <b>2007</b> , 7, 1500-4	11.5	102
203	Temperature conditions for GaAs nanowire formation by Au-assisted molecular beam epitaxy. <i>Nanotechnology</i> , <b>2006</b> , 17, 4025-30	3.4	101
202	Characterization and modeling of a ZnO nanowire ultraviolet photodetector with graphene transparent contact. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 234505	2.5	95
201	Epitaxy of GaN Nanowires on Graphene. <i>Nano Letters</i> , <b>2016</b> , 16, 4895-902	11.5	94
200	Near infrared quantum cascade detector in GaN/AlGaIn heterostructures. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 011112	3.4	91
199	Intersubband spectroscopy of doped and undoped GaN/AlN quantum wells grown by molecular-beam epitaxy. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 5196-5198	3.4	79

198	Midinfrared intersubband absorption in lattice-matched AlInN/GaN multiple quantum wells. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 111106	3.4	78
197	Terahertz intersubband absorption in GaN/AlGaIn step quantum wells. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 191101	3.4	77
196	Facet and in-plane crystallographic orientations of GaN nanowires grown on Si(111). <i>Nanotechnology</i> , <b>2008</b> , 19, 155704	3.4	77
195	Flexible White Light Emitting Diodes Based on Nitride Nanowires and Nanophosphors. <i>ACS Photonics</i> , <b>2016</b> , 3, 597-603	6.3	72
194	GaN/AlGaIn intersubband optoelectronic devices. <i>New Journal of Physics</i> , <b>2009</b> , 11, 125023	2.9	71
193	Visible-blind photodetector based on p-i-n junction GaN nanowire ensembles. <i>Nanotechnology</i> , <b>2010</b> , 21, 315201	3.4	69
192	Si-doped GaN/AlN quantum dot superlattices for optoelectronics at telecommunication wavelengths. <i>Journal of Applied Physics</i> , <b>2006</b> , 100, 044326	2.5	65
191	Core-shell InGaIn/GaN nanowire light emitting diodes analyzed by electron beam induced current microscopy and cathodoluminescence mapping. <i>Nanoscale</i> , <b>2015</b> , 7, 11692-701	7.7	64
190	Correlation of microphotoluminescence spectroscopy, scanning transmission electron microscopy, and atom probe tomography on a single nano-object containing an InGaIn/GaN multiquantum well system. <i>Nano Letters</i> , <b>2014</b> , 14, 107-14	11.5	63
189	Room temperature demonstration of GaN/AlN quantum dot intraband infrared photodetector at fiber-optics communication wavelength. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 143101	3.4	62
188	GaAs nanowires formed by Au-assisted molecular beam epitaxy: Effect of growth temperature. <i>Journal of Crystal Growth</i> , <b>2007</b> , 301-302, 853-856	1.6	61
187	Wurtzite to zinc blende phase transition in GaAs nanowires induced by epitaxial burying. <i>Nano Letters</i> , <b>2008</b> , 8, 1638-43	11.5	60
186	Single-wire photodetectors based on InGaIn/GaN radial quantum wells in GaN wires grown by catalyst-free metal-organic vapor phase epitaxy. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 233107	3.4	59
185	Correlation of optical and structural properties of GaN/AlN core-shell nanowires. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	57
184	Optical properties of wurtzite/zinc-blende heterostructures in GaN nanowires. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 064313	2.5	57
183	Single-Wire Light-Emitting Diodes Based on GaN Wires Containing Both Polar and Nonpolar InGaIn/GaN Quantum Wells. <i>Applied Physics Express</i> , <b>2012</b> , 5, 014101	2.4	54
182	Shape modification of III-V nanowires: the role of nucleation on sidewalls. <i>Physical Review E</i> , <b>2008</b> , 77, 031606	2.4	52
181	Flexible Photodiodes Based on Nitride Core/Shell p-n Junction Nanowires. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 26198-26206	9.5	52

180	Band offsets in cubic GaN/AlN superlattices. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	50
179	Short wavelength ( $\approx 2.13 \mu\text{m}$ ) intersubband luminescence from GaN/AlN quantum wells at room temperature. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 121106	3.4	50
178	Intersubband absorption of cubic GaN/Al(Ga)N quantum wells in the near-infrared to terahertz spectral range. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	48
177	Indium surfactant effect on AlN/GaN heterostructures grown by metal-organic vapor-phase epitaxy: Applications to intersubband transitions. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 151902	3.4	48
176	Short-wavelength intersubband electroabsorption modulation based on electron tunneling between GaN/AlN coupled quantum wells. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 223511	3.4	48
175	Intraband absorptions in GaN/AlN quantum dots in the wavelength range of $1.27\text{--}1.4 \mu\text{m}$ . <i>Applied Physics Letters</i> , <b>2003</b> , 82, 868-870	3.4	48
174	Self-assembled GaN quantum wires on GaN/AlN nanowire templates. <i>Nanoscale</i> , <b>2012</b> , 4, 7517-24	7.7	47
173	The role of surface diffusion of adatoms in the formation of nanowire crystals. <i>Semiconductors</i> , <b>2006</b> , 40, 1075-1082	0.7	45
172	Electron confinement in strongly coupled GaN/AlN quantum wells. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 153113	3.4	44
171	Two-color GaN/AlGaIn quantum cascade detector at short infrared wavelengths of 1 and $1.7 \mu\text{m}$ . <i>Applied Physics Letters</i> , <b>2012</b> , 100, 181103	3.4	43
170	High-speed operation of GaN/AlGaIn quantum cascade detectors at $1.55 \mu\text{m}$ . <i>Applied Physics Letters</i> , <b>2008</b> , 93, 193509	3.4	43
169	Photovoltaic properties of GaAsP core-shell nanowires on Si(001) substrate. <i>Nanotechnology</i> , <b>2012</b> , 23, 265402	3.4	42
168	GaN/AlGaIn waveguide quantum cascade photodetectors at $1.55 \mu\text{m}$ with enhanced responsivity and $\sim 40$ GHz frequency bandwidth. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 011135	3.4	41
167	Midinfrared intersubband absorption in GaN/AlGaIn superlattices on Si(111) templates. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 141911	3.4	41
166	Piezo-generator integrating a vertical array of GaN nanowires. <i>Nanotechnology</i> , <b>2016</b> , 27, 325403	3.4	41
165	Influence of shadow effect on the growth and shape of InAs nanowires. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 104317	2.5	40
164	Effect of doping on the mid-infrared intersubband absorption in GaN/AlGaIn superlattices grown on Si(111) templates. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 141903	3.4	40
163	From single III-nitride nanowires to piezoelectric generators: New route for powering nomad electronics. <i>Semiconductor Science and Technology</i> , <b>2016</b> , 31, 103002	1.8	38

162	Ballistic transport in GaN/AlGaIn resonant tunneling diodes. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 023717.	11.5	38
161	Towards Nanowire Tandem Junction Solar Cells on Silicon. <i>IEEE Journal of Photovoltaics</i> , <b>2018</b> , 8, 733-740.	9.7	37
160	Intraband absorption of doped GaN/AlN quantum dots at telecommunication wavelengths. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 101912	3.4	36
159	Flexible inorganic light emitting diodes based on semiconductor nanowires. <i>Chemical Science</i> , <b>2017</b> , 8, 7904-7911	9.4	35
158	Investigation of Photovoltaic Properties of Single Core-Shell GaN/InGaIn Wires. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 21898-906	9.5	32
157	Core-Shell Heterojunction Solar Cells Based on Disordered Silicon Nanowire Arrays. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 2962-2972	3.8	32
156	Origin of the electrical instabilities in GaN/AlGaIn double-barrier structure. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 142103	3.4	32
155	GaN-based quantum dot infrared photodetector operating at 1.38 [micro sign]m. <i>Electronics Letters</i> , <b>2005</b> , 41, 1077	1.1	32
154	Interband and intersubband optical characterization of semipolar (112̄2)-oriented GaN/AlN multiple-quantum-well structures. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 111906	3.4	31
153	Experimental and theoretical analysis of transport properties of core-shell wire light emitting diodes probed by electron beam induced current microscopy. <i>Nanotechnology</i> , <b>2014</b> , 25, 255201	3.4	30
152	Double strain state in a single GaN/AlN nanowire: Probing the core-shell effect by ultraviolet resonant Raman scattering. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	30
151	Investigation of the electronic transport in GaN nanowires containing GaN/AlN quantum discs. <i>Nanotechnology</i> , <b>2010</b> , 21, 425206	3.4	30
150	Visualizing highly localized luminescence in GaN/AlN heterostructures in nanowires. <i>Nanotechnology</i> , <b>2012</b> , 23, 455205	3.4	30
149	Intersubband resonant enhancement of second-harmonic generation in GaN/AlN quantum wells. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 151101	3.4	30
148	Excitonic Diffusion in InGaIn/GaN Core-Shell Nanowires. <i>Nano Letters</i> , <b>2016</b> , 16, 243-9	11.5	28
147	Interplay of the photovoltaic and photoconductive operation modes in visible-blind photodetectors based on axial p-i-n junction GaN nanowires. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 023116	3.4	28
146	Self-induced growth of vertical GaN nanowires on silica. <i>Nanotechnology</i> , <b>2016</b> , 27, 135602	3.4	28
145	Origin of energy dispersion in Al <sub>x</sub> Ga <sub>1-x</sub> In/GaN nanowire quantum discs with low Al content. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	27

144	Dopant-stimulated growth of GaN nanotube-like nanostructures on Si(111) by molecular beam epitaxy. <i>Beilstein Journal of Nanotechnology</i> , <b>2018</b> , 9, 146-154	3	25
143	Electrooptical Modulator at Telecommunication Wavelengths Based on GaN/AlN Coupled Quantum Wells. <i>IEEE Photonics Technology Letters</i> , <b>2008</b> , 20, 724-726	2.2	25
142	Determination of n-Type Doping Level in Single GaAs Nanowires by Cathodoluminescence. <i>Nano Letters</i> , <b>2017</b> , 17, 6667-6675	11.5	24
141	Photoluminescence polarization in strained GaN/AlGaIn core/shell nanowires. <i>Nanotechnology</i> , <b>2012</b> , 23, 325701	3.4	24
140	Photoluminescence polarization properties of single GaN nanowires containing Al <sub>x</sub> Ga <sub>1-x</sub> N/GaN quantum discs. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	24
139	Structural and optical characterizations of nitrogen-doped ZnO nanowires grown by MOCVD. <i>Materials Letters</i> , <b>2010</b> , 64, 2112-2114	3.3	24
138	Growth of thin AlInN/GaInN quantum wells for applications to high-speed intersubband devices at telecommunication wavelengths. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2006</b> , 24, 1505		24
137	Femto-second electron transit time characterization in GaN/AlGaIn quantum cascade detector at 1.5 micron. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 202111	3.4	23
136	Multi-microscopy study of the influence of stacking faults and three-dimensional In distribution on the optical properties of m-plane InGaIn quantum wells grown on microwire sidewalls. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 042102	3.4	23
135	Influence of Substrate Microstructure on the Transport Properties of CVD-Graphene. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 240-6	9.5	21
134	Assessing individual radial junction solar cells over millions on VLS-grown silicon nanowires. <i>Nanotechnology</i> , <b>2013</b> , 24, 275401	3.4	21
133	Systematic study of near-infrared intersubband absorption of polar and semipolar GaN/AlN quantum wells. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 143109	2.5	21
132	A simplified GaN/AlGaIn quantum cascade detector with an alloy extractor. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 251101	3.4	19
131	Intraband emission at 1.48 eV from GaN/AlN quantum dots at room temperature. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 161105	3.4	19
130	In situ passivation of GaAsP nanowires. <i>Nanotechnology</i> , <b>2017</b> , 28, 495707	3.4	18
129	Color control of nanowire InGaIn/GaN light emitting diodes by post-growth treatment. <i>Nanotechnology</i> , <b>2015</b> , 26, 465203	3.4	18
128	Growth of Inclined GaAs Nanowires by Molecular Beam Epitaxy: Theory and Experiment. <i>Nanoscale Research Letters</i> , <b>2010</b> , 5, 1692-7	5	18
127	Green Electroluminescence From Radial m-Plane InGaIn Quantum Wells Grown on GaN Wire Sidewalls by Metal-Organic Vapor Phase Epitaxy. <i>ACS Photonics</i> , <b>2018</b> , 5, 4330-4337	6.3	18

126	Three-dimensional atomic-scale investigation of ZnO-MgxZn1-xO m-plane heterostructures. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 032108	3.4	17
125	Nanometer-scale monitoring of quantum-confined Stark effect and emission efficiency droop in multiple GaN/AlN quantum disks in nanowires. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	16
124	Contact properties to CVD-graphene on GaAs substrates for optoelectronic applications. <i>Nanotechnology</i> , <b>2014</b> , 25, 335707	3.4	16
123	Ultrafast relaxation and optical saturation of intraband absorption of GaN/AlN quantum dots. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 132104	3.4	16
122	GaN/AlN free-standing nanowires grown by molecular beam epitaxy. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2008</b> , 5, 1556-1558		15
121	Modified silicone rubber for fabrication and contacting of flexible suspended membranes of n-/p-GaP nanowires with a single-walled carbon nanotube transparent contact. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 3764-3772	7.1	15
120	InGaN/GaN core/shell nanowires for visible to ultraviolet range photodetection. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2016</b> , 213, 936-940	1.6	15
119	Substrate-Free InGaN/GaN Nanowire Light-Emitting Diodes. <i>Nanoscale Research Letters</i> , <b>2015</b> , 10, 447	5	14
118	Resonant Tunneling Transport in a GaN/AlN Multiple-Quantum-Well Structure. <i>Applied Physics Express</i> , <b>2012</b> , 5, 052203	2.4	14
117	Lateral growth and shape of semiconductor nanowires. <i>Semiconductors</i> , <b>2013</b> , 47, 50-57	0.7	14
116	GaN-based quantum cascade photodetector with 1.5 [micro sign]m peak detection wavelength. <i>Electronics Letters</i> , <b>2010</b> , 46, 1685	1.1	14
115	Short infrared wavelength quantum cascade detectors based on m-plane ZnO/ZnMgO quantum wells. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 251104	3.4	14
114	High degree of polarization of the near-band-edge photoluminescence in ZnO nanowires. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 501	5	13
113	Characterization of the Resonant Third-Order Nonlinear Susceptibility of Si-Doped GaN/AlN Quantum Wells and Quantum Dots at 1.5 μm. <i>IEEE Photonics Technology Letters</i> , <b>2008</b> , 20, 1366-1368	3.2	13
112	Selective-Area Remote Epitaxy of ZnO Microrods Using Multilayer/Monolayer-Patterned Graphene for Transferable and Flexible Device Fabrications. <i>ACS Applied Nano Materials</i> , <b>2020</b> , 3, 8920-8930	5.6	13
111	Light emission from localised point defects induced in GaN crystal by a femtosecond-pulsed laser. <i>Optical Materials Express</i> , <b>2018</b> , 8, 2703	2.6	13
110	Comprehensive analyses of core-shell InGaN/GaN single nanowire photodiodes. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 484001	3	12
109	Lasing of multiperiod quantum-cascade lasers in the spectral range of (5.6-8)-th under current pumping. <i>Semiconductors</i> , <b>2015</b> , 49, 1527-1530	0.7	12



108	High Piezoelectric Conversion Properties of Axial InGaN/GaN Nanowires. <i>Nanomaterials</i> , <b>2018</b> , 8, 5-4 12
107	Nitride intersubband devices: prospects and recent developments. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2007</b> , 204, 1987-1995 1.6 12
106	Observation of hot luminescence and slow inter-sub-band relaxation in Si-doped GaN <sub>1-x</sub> Ga <sub>x</sub> N (x=0.11, 0.25) multi-quantum-well structures. <i>Journal of Applied Physics</i> , <b>2006</b> , 99, 093513 2.5 12
105	Morphology Tailoring and Growth Mechanism of Indium-Rich InGaN/GaN Axial Nanowire Heterostructures by Plasma-Assisted Molecular Beam Epitaxy. <i>Crystal Growth and Design</i> , <b>2018</b> , 18, 2545-2554 3.5 11
104	First demonstration of plasmonic GaN quantum cascade detectors with enhanced efficiency at normal incidence. <i>Optics Express</i> , <b>2014</b> , 22, 21069-78 3.3 11
103	Effect of diffusion from a lateral surface on the rate of GaN nanowire growth. <i>Semiconductors</i> , <b>2012</b> , 46, 838-841 0.7 11
102	Si Incorporation in InP Nanowires Grown by Au-Assisted Molecular Beam Epitaxy. <i>Journal of Nanomaterials</i> , <b>2009</b> , 2009, 1-7 3.2 11
101	Electroabsorption and refractive index modulation induced by intersubband transitions in GaN/AlN multiple quantum wells. <i>Optics Express</i> , <b>2012</b> , 20, 12541-9 3.3 11
100	Intersubband optics in GaN-based nanostructures [physics and applications. <i>Physica Status Solidi (B): Basic Research</i> , <b>2010</b> , 247, 1622-1627 1.3 11
99	Latest developments in GaN-based quantum devices for infrared optoelectronics. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2008</b> , 19, 821-827 2.1 11
98	Selective Area Growth of GaN Nanowires on Graphene Nanodots. <i>Crystal Growth and Design</i> , <b>2020</b> , 20, 552-559 3.5 11
97	Growth optimization and characterization of regular arrays of GaAs/AlGaAs core/shell nanowires for tandem solar cells on silicon. <i>Nanotechnology</i> , <b>2019</b> , 30, 084005 3.4 11
96	Effect of postgrowth heat treatment on the structural and optical properties of InP/InAsP/InP nanowires. <i>Semiconductors</i> , <b>2012</b> , 46, 175-178 0.7 10
95	Yellow and green luminescence in single-crystal Ge-catalyzed GaN nanowires grown by low pressure chemical vapor deposition. <i>Optical Materials Express</i> , <b>2017</b> , 7, 1995 2.6 10
94	Optical properties of GaN-based nanowires containing a single Al(0.14)Ga(0.86)N/GaN quantum disc. <i>Nanotechnology</i> , <b>2013</b> , 24, 125201 3.4 10
93	GaN/AlN quantum disc single-nanowire photodetectors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2010</b> , 207, 1323-1327 1.6 10
92	Optical properties of GaN nanowires grown on chemical vapor deposited-graphene. <i>Nanotechnology</i> , <b>2019</b> , 30, 214005 3.4 9
91	Vertical Transport in GaN/AlGaN Resonant Tunneling Diodes and Superlattices. <i>Journal of Electronic Materials</i> , <b>2012</b> , 41, 965-970 1.9 9



90	New developments for nitride unipolar devices at 1.3 $\mu$ m wavelengths. <i>Superlattices and Microstructures</i> , <b>2006</b> , 40, 412-417	2.8	9
89	Nanoscale electrical analyses of axial-junction GaAsP nanowires for solar cell applications. <i>Nanotechnology</i> , <b>2020</b> , 31, 145708	3.4	9
88	Nanoscale investigation of a radial p-n junction in self-catalyzed GaAs nanowires grown on Si (111). <i>Nanoscale</i> , <b>2018</b> , 10, 20207-20217	7.7	9
87	Electron beam induced current microscopy investigation of GaN nanowire arrays grown on Si substrates. <i>Materials Science in Semiconductor Processing</i> , <b>2016</b> , 55, 72-78	4.3	8
86	Optical and theoretical study of strong electron coupling in double GaN/AlN quantum wells. <i>Physica Status Solidi (B): Basic Research</i> , <b>2006</b> , 243, 1630-1633	1.3	8
85	Nanoscale analysis of electrical junctions in InGaP nanowires grown by template-assisted selective epitaxy. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 103101	3.4	7
84	MBE growth of nitride-based photovoltaic intersubband detectors. <i>Superlattices and Microstructures</i> , <b>2006</b> , 40, 418-425	2.8	7
83	ALD of ZnO:Ti: Growth Mechanism and Application as an Efficient Transparent Conductive Oxide in Silicon Nanowire Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 21036-21044	9.5	7
82	Probing elastic properties of nanowire-based structures. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 161903	3.4	7
81	Surface potential investigation on interdigitated back contact solar cells by Scanning Electron Microscopy and Kelvin Probe Force Microscopy: Effect of electrical bias. <i>Solar Energy Materials and Solar Cells</i> , <b>2017</b> , 161, 263-269	6.4	6
80	Structural and Optical Properties of Self-Catalyzed Axially Heterostructured GaPN/GaP Nanowires Embedded into a Flexible Silicone Membrane. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	6
79	A GaN/AlN quantum cascade detector with a broad response from the mid-infrared (4.1 $\mu$ m) to the visible (550 nm) spectral range. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 171102	3.4	6
78	High structural quality InGaP/GaP multiple quantum well solar cells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2015</b> , 12, 1412-1415		6
77	Homogeneous linewidth of the intraband transition at 1.55 $\mu$ m in GaN/AlN quantum dots. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 061903	3.4	6
76	GaN/AlN quantum dot photodetectors at 1.3 $\mu$ m. <i>Superlattices and Microstructures</i> , <b>2006</b> , 40, 262-267	2.8	6
75	Intraband light absorption in InAs/GaAs quantum dots covered with InGaAs quantum wells. <i>Semiconductor Science and Technology</i> , <b>2006</b> , 21, 1341-1347	1.8	6
74	Fabrication and electrical study of large area free-standing membrane with embedded GaP NWs for flexible devices. <i>Nanotechnology</i> , <b>2020</b> , 31, 46LT01	3.4	6
73	The elevated colour rendering of white-LEDs by microwave-synthesized red-emitting (Li, Mg)RbGeO:Mn nanophosphors. <i>Dalton Transactions</i> , <b>2021</b> , 50, 3044-3059	4.3	6

72	GaN/Ga <sub>2</sub> O <sub>3</sub> Core/Shell Nanowires Growth: Towards High Response Gas Sensors. <i>Applied Sciences (Switzerland)</i> , <b>2019</b> , 9, 3528	2.6	5
71	Hydrogen passivation of the n-GaN nanowire/p-Si heterointerface. <i>Nanotechnology</i> , <b>2020</b> , 31, 244003	3.4	5
70	Cathodoluminescence spectra of gallium nitride nanorods. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 631	5	5
69	Strain effects in GaN/AlN multi-quantum-well structures for infrared optoelectronics. <i>Microelectronics Journal</i> , <b>2009</b> , 40, 336-338	1.8	5
68	Effect of deposition conditions on nanowhisker morphology. <i>Semiconductors</i> , <b>2007</b> , 41, 865-874	0.7	5
67	Intraband spectroscopy of self-organized GaN/AlN quantum dots. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2003</b> , 17, 60-63	3	5
66	Image-based autofocusing system for nonlinear optical microscopy with broad spectral tuning. <i>Optics Express</i> , <b>2019</b> , 27, 19915-19930	3.3	5
65	Nitride Nanowires for Light Emitting Diodes. <i>Solid State Lighting Technology and Application Series</i> , <b>2019</b> , 425-484	0.7	5
64	Evaluation of Effective Elastic Properties of Nitride NWs/Polymer Composite Materials Using Laser-Generated Surface Acoustic Waves. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 2319	2.6	5
63	Investigation of GaN nanowires containing AlN/GaN multiple quantum discs by EBIC and CL techniques. <i>Nanotechnology</i> , <b>2019</b> , 30, 214006	3.4	4
62	Compound Semiconductor Nanowire Photodetectors. <i>Semiconductors and Semimetals</i> , <b>2016</b> , 94, 75-107	0.6	4
61	Potential of semiconductor nanowires for single photon sources <b>2009</b> ,		4
60	GaN/AlGaIn nanostructures for intersubband optoelectronics. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2010</b> , 207, 1421-1424	1.6	4
59	III-Nitride Nanostructures for Infrared Optoelectronics. <i>Acta Physica Polonica A</i> , <b>2006</b> , 110, 295-301	0.6	4
58	Terahertz intersubband absorption of GaN/AlGaIn step quantum wells grown by MOVPE on Si(111) and Si(110) substrates. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 261103	3.4	4
57	Correlated optical and structural analyses of individual GaAsP/GaP core-shell nanowires. <i>Nanotechnology</i> , <b>2019</b> , 30, 304001	3.4	3
56	In Situ X-ray Diffraction Study of GaN Nucleation on Transferred Graphene. <i>Crystal Growth and Design</i> , <b>2020</b> , 20, 4013-4019	3.5	3
55	Colour optimization of phosphor-converted flexible nitride nanowire white light emitting diodes. <i>JPhys Photonics</i> , <b>2019</b> , 1, 035003	2.5	3

54	Photovoltaic properties of GaAs:Be nanowire arrays. <i>Semiconductors</i> , <b>2013</b> , 47, 808-811	0.7	3
53	Controlling the properties of electrodeposited ZnO nanowire arrays for light emitting diode, photodetector and gas sensor applications <b>2014</b> ,		3
52	Cubic III-nitride coupled quantum wells towards unipolar optically pumped lasers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2013</b> , 210, 455-458	1.6	3
51	Polar and semipolar III-nitrides for long wavelength intersubband devices <b>2010</b> ,		3
50	Growth of intersubband GaN/AlGaIn heterostructures <b>2010</b> ,		3
49	Nitride-based heterostructures grown by MOCVD for near- and mid-infrared intersubband transitions. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2007</b> , 204, 1100-1104	1.6	3
48	Contactless electroreflectance spectroscopy of inter- and intersub-band transitions in AlInN/GaInN quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2008</b> , 5, 503-507		3
47	Growth and characterization of AlInN/GaInN quantum wells for high-speed intersubband devices at telecommunication wavelengths <b>2006</b> ,		3
46	Si-doped GaN/AlN quantum dot superlattices for optoelectronics at telecommunication wavelengths. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2006</b> , 203, 1754-1758	1.6	3
45	Spectroscopy of the electron states in self-organized GaN/AlN quantum dots. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2004</b> , 1, 1456-1460		3
44	Investigation of the effect of the doping order in GaN nanowire p-n junctions grown by molecular-beam epitaxy. <i>Nanotechnology</i> , <b>2021</b> , 32, 085705	3-4	3
43	Improvement of carrier collection in Si/a-Si:H nanowire solar cells by using hybrid ITO/silver nanowires contacts. <i>Nanotechnology</i> , <b>2020</b> , 31, 435408	3-4	3
42	Intersubband absorption in m-plane ZnO/ZnMgO MQWs <b>2017</b> ,		2
41	Electrical detection of picosecond acoustic pulses in vertical transport devices with nanowires. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 062102	3-4	2
40	Study of the electrical properties of individual (Ga,Mn)As nanowires. <i>Semiconductors</i> , <b>2014</b> , 48, 344-349	0.7	2
39	Review of nitride infrared intersubband devices <b>2010</b> ,		2
38	Near-infrared intersubband emission from GaN/AlN quantum dots and quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2008</b> , 5, 2120-2122		2
37	Correlated optical and electrical analyses of inhomogeneous core/shell InGaIn/GaN nanowire light emitting diodes. <i>Nanotechnology</i> , <b>2021</b> , 32, 105202	3-4	2

36	Influence of surface passivation on the electrical properties of p <sup>+</sup> GaAsP nanowires. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 123104	3.4	2
35	Stretchable Transparent Light-Emitting Diodes Based on InGaN/GaN Quantum Well Microwires and Carbon Nanotube Films. <i>Nanomaterials</i> , <b>2021</b> , 11,	5.4	2
34	Flexible optoelectronic devices based on nitride nanowires embedded in polymer films <b>2016</b> ,		2
33	Fabrication and Study of Optical Properties of LEDs Based on GaN Micropylramids with a Ni/Au/Graphene Semi-Transparent Contact. <i>Technical Physics Letters</i> , <b>2018</b> , 44, 1111-1114	0.7	2
32	Review on deep red-emitting rare-earth free germanates and their efficiency as well as adaptability for various applications. <i>Applied Materials Today</i> , <b>2021</b> , 24, 101094	6.6	2
31	A 5.7 THz GaN/AlGaN quantum cascade detector based on polar step quantum wells. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 171103	3.4	2
30	Electroluminescence of Single InGaN/GaN Micropylramids. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , <b>2019</b> , 126, 118-123	0.7	1
29	Nitride nanowire light emitting diodes <b>2015</b> ,		1
28	Epitaxy of GaN nanowires on graphene <b>2016</b> , 668-669		1
27	Electrical and Electro-Optical Characterization of Semiconductor Nanowires <b>2013</b> , 641-684		1
26	GaN Nanowire-Based Ultraviolet Photodetectors <b>2014</b> , 179-202		1
25	Characterization of high index microsphere resonators in fiber-integrated microfluidic platforms <b>2011</b> ,		1
24	Broadening of intersubband transitions in InGaN/AlInN multiquantum wells. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2010</b> , 28, C3B17-C3B21	1.3	1
23	GaN/AlGaN intersubband optoelectronic devices at telecommunication wavelengths <b>2009</b> ,		1
22	Semiconductor nanowires in InP and related material systems: MBE growth and properties <b>2008</b> ,		1
21	Electro-optical intersubband modulators at telecommunication wavelengths based on GaN/AlN quantum wells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2008</b> , 205, 1093-1095	1.6	1
20	Intraband photodetection at 1.3-1.5 $\mu\text{m}$ in self-organized GaN/AlN quantum dots. <i>Physica Status Solidi (B): Basic Research</i> , <b>2006</b> , 243, 3993-3997	1.3	1
19	Heat Dissipation in Flexible Nitride Nanowire Light-Emitting Diodes. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	1

18	Dual-Color Emission from Monolithic m-Plane CoreShell InGaN/GaN Quantum Wells. <i>Advanced Photonics Research</i> , <b>2021</b> , 2, 2000148	1.9	1
17	Nitride Nanowires: From Rigid to Flexible Piezo-generators. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 773, 012010	0.3	1
16	Optical properties of photodetectors based on single GaN nanowires with a transparent graphene contact. <i>Semiconductors</i> , <b>2016</b> , 50, 1097-1101	0.7	1
15	Nanoscale Analyses Applied to Nanowire Devices. <i>Semiconductors and Semimetals</i> , <b>2018</b> , 231-319	0.6	0
14	Advances in Physics of Semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , <b>2019</b> , 256, 1900282	1.3	
13	Flexible Light-Emitting Diodes Based on Inorganic Semiconductor Nanostructures: From Thin Films to Nanowires <b>2019</b> , 41-77		
12	Optimization of the optical coupling in nanowire-based integrated photonic platforms by FDTD simulation. <i>Beilstein Journal of Nanotechnology</i> , <b>2018</b> , 9, 2248-2254	3	
11	Experimental demonstration and observation of a plasmon wave occurring at a GaAs-Au-GaN interface. <i>Optics Letters</i> , <b>2013</b> , 38, 2425-7	3	
10	Room temperature intraband Raman emission and ultrafast carrier relaxation in GaN/AlN quantum dots. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2009</b> , 6, S650-S653		
9	Optical characterization of AlGaIn/GaN quantum disc structures in single nanowires. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2010</b> , 7, 2243-2245		
8	GaN/AlGaIn superlattices for optoelectronics in the mid-infrared. <i>Physica Status Solidi (B): Basic Research</i> , <b>2006</b> , 243, 1669-1673	1.3	
7	Intraband Transitions on GaN/AlN Quantum Wells Grown on Sapphire (0001) and 6H-SiC Substrates. <i>Materials Science Forum</i> , <b>2004</b> , 457-460, 1589-1592	0.4	
6	Intersubband absorptions in doped and undoped GaN/AlN quantum wells at telecommunication wavelengths. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2004</b> , 1, 1451-1455		
5	Intersubband Absorptions in Doped and Undoped GaN/AlN Quantum Wells at Telecommunication Wavelengths Grown on Sapphire and 6H-SiC Substrates. <i>Materials Research Society Symposia Proceedings</i> , <b>2003</b> , 798, 418		
4	Spectroscopy of Intraband Electron Confinement in Self-Assembled GaN/AlN Quantum Dots. <i>Materials Research Society Symposia Proceedings</i> , <b>2003</b> , 798, 575		
3	Characterisation of Semiconductor Nanowires by Electron Beam Induced Microscopy and Cathodoluminescence <b>2021</b> , 251-288		
2	DFT analysis of crystal polarity on graphene surface. <i>Journal of Physics: Conference Series</i> , <b>2021</b> , 2015, 012105	0.3	
1	Crystal polarity discrimination in GaN nanowires on graphene. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 9997-10004	7.1	

