Maria Tchernycheva

List of Publications by Year in Descending Order

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	A 5.7 THz GaN/AlGaN quantum cascade detector based on polar step quantum wells. *Applied Physics Letters*, **2022**, 120, 171103	3.4	2
214	Characterisation of Semiconductor Nanowires by Electron Beam Induced Microscopy and Cathodoluminescence **2021**, 251-288		
213	DFT analysis of crystal polarity on graphene surface. *Journal of Physics: Conference Series*, **2021**, 2015, 012105	0.3	
212	Correlated optical and electrical analyses of inhomogeneous core/shell InGaN/GaN nanowire light emitting diodes. *Nanotechnology*, **2021**, 32, 105202	3.4	2
211	Investigation of the effect of the doping order in GaN nanowire p-n junctions grown by molecular-beam epitaxy. *Nanotechnology*, **2021**, 32, 085705	3.4	3
210	Dual-Color Emission from Monolithic m-Plane Core–Shell InGaN/GaN Quantum Wells. *Advanced Photonics Research*, **2021**, 2, 2000148	1.9	1
209	Stretchable Transparent Light-Emitting Diodes Based on InGaN/GaN Quantum Well Microwires and Carbon Nanotube Films. *Nanomaterials*, **2021**, 11,	5.4	2
208	Crystal polarity discrimination in GaN nanowires on graphene. *Journal of Materials Chemistry C*, **2021**, 9, 9997-10004	7.1	
207	The elevated colour rendering of white-LEDs by microwave-synthesized red-emitting (Li, Mg)RbGeO:Mn nanophosphors. *Dalton Transactions*, **2021**, 50, 3044-3059	4.3	6
206	Review on deep red-emitting rare-earth free germanates and their efficiency as well as adaptability for various applications. *Applied Materials Today*, **2021**, 24, 101094	6.6	2
205	Structural and Optical Properties of Self-Catalyzed Axially Heterostructured GaPN/GaP Nanowires Embedded into a Flexible Silicone Membrane. *Nanomaterials*, **2020**, 10,	5.4	6
204	In Situ X-ray Diffraction Study of GaN Nucleation on Transferred Graphene. *Crystal Growth and Design*, **2020**, 20, 4013-4019	3.5	3
203	Hydrogen passivation of the n-GaN nanowire/p-Si heterointerface. *Nanotechnology*, **2020**, 31, 244003	3.4	5
202	A GaN/AlN quantum cascade detector with a broad response from the mid-infrared (4.1 μm) to the visible (550 nm) spectral range. *Applied Physics Letters*, **2020**, 116, 171102	3.4	6
201	Modified silicone rubber for fabrication and contacting of flexible suspended membranes of n-/p-GaP nanowires with a single-walled carbon nanotube transparent contact. *Journal of Materials Chemistry C*, **2020**, 8, 3764-3772	7.1	15
200	Fabrication and electrical study of large area free-standing membrane with embedded GaP NWs for flexible devices. *Nanotechnology*, **2020**, 31, 46LT01	3.4	6
199	Selective Area Growth of GaN Nanowires on Graphene Nanodots. *Crystal Growth and Design*, **2020**, 20, 552-559	3.5	11

198	Nanoscale electrical analyses of axial-junction GaAsP nanowires for solar cell applications. *Nanotechnology*, **2020**, 31, 145708	3.4	9
197	Improvement of carrier collection in Si/a-Si:H nanowire solar cells by using hybrid ITO/silver nanowires contacts. *Nanotechnology*, **2020**, 31, 435408	3.4	3
196	Heat Dissipation in Flexible Nitride Nanowire Light-Emitting Diodes. *Nanomaterials*, **2020**, 10,	5.4	1
195	Selective-Area Remote Epitaxy of ZnO Microrods Using Multilayer Monolayer-Patterned Graphene for Transferable and Flexible Device Fabrications. *ACS Applied Nano Materials*, **2020**, 3, 8920-8930	5.6	13
194	Influence of surface passivation on the electrical properties of p-i-n GaAsP nanowires. *Applied Physics Letters*, **2020**, 117, 123104	3.4	2
193	ALD of ZnO:Ti: Growth Mechanism and Application as an Efficient Transparent Conductive Oxide in Silicon Nanowire Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 21036-21044	9.5	7
192	GaN/Ga2O3 Core/Shell Nanowires Growth: Towards High Response Gas Sensors. *Applied Sciences (Switzerland)*, **2019**, 9, 3528	2.6	5
191	Advances in Physics of Semiconductors. *Physica Status Solidi (B): Basic Research*, **2019**, 256, 1900282	1.3	
190	Flexible Light-Emitting Diodes Based on Inorganic Semiconductor Nanostructures: From Thin Films to Nanowires **2019**, 41-77		
189	Electroluminescence of Single InGaN/GaN Micropyramids. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2019**, 126, 118-123	0.7	1
188	Nanoscale analysis of electrical junctions in InGaP nanowires grown by template-assisted selective epitaxy. *Applied Physics Letters*, **2019**, 114, 103101	3.4	7
187	Correlated optical and structural analyses of individual GaAsP/GaP core-shell nanowires. *Nanotechnology*, **2019**, 30, 304001	3.4	3
186	Optical properties of GaN nanowires grown on chemical vapor deposited-graphene. *Nanotechnology*, **2019**, 30, 214005	3.4	9
185	Investigation of GaN nanowires containing AlN/GaN multiple quantum discs by EBIC and CL techniques. *Nanotechnology*, **2019**, 30, 214006	3.4	4
184	Colour optimization of phosphor-converted flexible nitride nanowire white light emitting diodes. *JPhys Photonics*, **2019**, 1, 035003	2.5	3
183	Image-based autofocusing system for nonlinear optical microscopy with broad spectral tuning. *Optics Express*, **2019**, 27, 19915-19930	3.3	5
182	Terahertz intersubband absorption of GaN/AlGaN step quantum wells grown by MOVPE on Si(111) and Si(110) substrates. *Applied Physics Letters*, **2019**, 115, 261103	3.4	4
181	Nitride Nanowires for Light Emitting Diodes. *Solid State Lighting Technology and Application Series*, **2019**, 425-484	0.7	5

180	Growth optimization and characterization of regular arrays of GaAs/AlGaAs core/shell nanowires for tandem solar cells on silicon. *Nanotechnology*, **2019**, 30, 084005	3.4	11
179	Morphology Tailoring and Growth Mechanism of Indium-Rich InGaN/GaN Axial Nanowire Heterostructures by Plasma-Assisted Molecular Beam Epitaxy. *Crystal Growth and Design*, **2018**, 18, 2545-2554	3.5	11
178	Towards Nanowire Tandem Junction Solar Cells on Silicon. *IEEE Journal of Photovoltaics*, **2018**, 8, 733-740	3.7	37
177	Nanoscale Analyses Applied to Nanowire Devices. *Semiconductors and Semimetals*, **2018**, 231-319	0.6	0
176	Dopant-stimulated growth of GaN nanotube-like nanostructures on Si(111) by molecular beam epitaxy. *Beilstein Journal of Nanotechnology*, **2018**, 9, 146-154	3	25
175	High Piezoelectric Conversion Properties of Axial InGaN/GaN Nanowires. *Nanomaterials*, **2018**, 8,	5.4	12
174	Optimization of the optical coupling in nanowire-based integrated photonic platforms by FDTD simulation. *Beilstein Journal of Nanotechnology*, **2018**, 9, 2248-2254	3	
173	Evaluation of Effective Elastic Properties of Nitride NWs/Polymer Composite Materials Using Laser-Generated Surface Acoustic Waves. *Applied Sciences (Switzerland)*, **2018**, 8, 2319	2.6	5
172	Fabrication and Study of Optical Properties of LEDs Based on GaN Micropyramids with a Ni/Au/Graphene Semi-Transparent Contact. *Technical Physics Letters*, **2018**, 44, 1111-1114	0.7	2
171	Short infrared wavelength quantum cascade detectors based on m-plane ZnO/ZnMgO quantum wells. *Applied Physics Letters*, **2018**, 113, 251104	3.4	14
170	Nanoscale investigation of a radial p-n junction in self-catalyzed GaAs nanowires grown on Si (111). *Nanoscale*, **2018**, 10, 20207-20217	7.7	9
169	Green Electroluminescence from Radial m-Plane InGaN Quantum Wells Grown on GaN Wire Sidewalls by Metal□Organic Vapor Phase Epitaxy. *ACS Photonics*, **2018**, 5, 4330-4337	6.3	18
168	Probing elastic properties of nanowire-based structures. *Applied Physics Letters*, **2018**, 113, 161903	3.4	7
167	Light emission from localised point defects induced in GaN crystal by a femtosecond-pulsed laser. *Optical Materials Express*, **2018**, 8, 2703	2.6	13
166	Intersubband absorption in m-plane ZnO/ZnMgO MQWs **2017**,		2
165	Surface potential investigation on interdigitated back contact solar cells by Scanning Electron Microscopy and Kelvin Probe Force Microscopy: Effect of electrical bias. *Solar Energy Materials and Solar Cells*, **2017**, 161, 263-269	6.4	6
164	Flexible inorganic light emitting diodes based on semiconductor nanowires. *Chemical Science*, **2017**, 8, 7904-7911	9.4	35
163	Comprehensive analyses of core□shell InGaN/GaN single nanowire photodiodes. *Journal Physics D: Applied Physics*, **2017**, 50, 484001	3	12

162	Determination of n-Type Doping Level in Single GaAs Nanowires by Cathodoluminescence. *Nano Letters*, **2017**, 17, 6667-6675	11.5	24
161	In situ passivation of GaAsP nanowires. *Nanotechnology*, **2017**, 28, 495707	3.4	18
160	Three-dimensional atomic-scale investigation of ZnO-MgxZn1−xO m-plane heterostructures. *Applied Physics Letters*, **2017**, 111, 032108	3.4	17
159	Yellow and green luminescence in single-crystal Ge-catalyzed GaN nanowires grown by low pressure chemical vapor deposition. *Optical Materials Express*, **2017**, 7, 1995	2.6	10
158	Epitaxy of GaN nanowires on graphene **2016**, 668-669		1
157	Epitaxy of GaN Nanowires on Graphene. *Nano Letters*, **2016**, 16, 4895-902	11.5	94
156	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,	3.3	16
155	From single III-nitride nanowires to piezoelectric generators: New route for powering nomad electronics. *Semiconductor Science and Technology*, **2016**, 31, 103002	1.8	38
154	Influence of Substrate Microstructure on the Transport Properties of CVD-Graphene. *ACS Applied Materials & Interfaces*, **2016**, 8, 240-6	9.5	21
153	Compound Semiconductor Nanowire Photodetectors. *Semiconductors and Semimetals*, **2016**, 94, 75-107	0.6	4
152	Flexible White Light Emitting Diodes Based on Nitride Nanowires and Nanophosphors. *ACS Photonics*, **2016**, 3, 597-603	6.3	72
151	Electron beam induced current microscopy investigation of GaN nanowire arrays grown on Si substrates. *Materials Science in Semiconductor Processing*, **2016**, 55, 72-78	4.3	8
150	Excitonic Diffusion in InGaN/GaN Core-Shell Nanowires. *Nano Letters*, **2016**, 16, 243-9	11.5	28
149	Core−Shell Heterojunction Solar Cells Based on Disordered Silicon Nanowire Arrays. *Journal of Physical Chemistry C*, **2016**, 120, 2962-2972	3.8	32
148	Piezo-generator integrating a vertical array of GaN nanowires. *Nanotechnology*, **2016**, 27, 325403	3.4	41
147	InGaN/GaN core/shell nanowires for visible to ultraviolet range photodetection. *Physica Status Solidi (A) Applications and Materials Science*, **2016**, 213, 936-940	1.6	15
146	Flexible optoelectronic devices based on nitride nanowires embedded in polymer films **2016**,		2
145	Multi-microscopy study of the influence of stacking faults and three-dimensional In distribution on the optical properties of m-plane InGaN quantum wells grown on microwire sidewalls. *Applied Physics Letters*, **2016**, 108, 042102	3.4	23

144	Nitride Nanowires: From Rigid to Flexible Piezo-generators. *Journal of Physics: Conference Series*, **2016**, 773, 012010	0.3	1
143	Self-induced growth of vertical GaN nanowires on silica. *Nanotechnology*, **2016**, 27, 135602	3.4	28
142	Flexible Photodiodes Based on Nitride Core/Shell p-n Junction Nanowires. *ACS Applied Materials & Interfaces*, **2016**, 8, 26198-26206	9.5	52
141	Optical properties of photodetectors based on single GaN nanowires with a transparent graphene contact. *Semiconductors*, **2016**, 50, 1097-1101	0.7	1
140	Core-shell InGaN/GaN nanowire light emitting diodes analyzed by electron beam induced current microscopy and cathodoluminescence mapping. *Nanoscale*, **2015**, 7, 11692-701	7.7	64
139	Investigation of Photovoltaic Properties of Single Core-Shell GaN/InGaN Wires. *ACS Applied Materials & Interfaces*, **2015**, 7, 21898-906	9.5	32
138	Lasing of multiperiod quantum-cascade lasers in the spectral range of (5.6–5.8)-μm under current pumping. *Semiconductors*, **2015**, 49, 1527-1530	0.7	12
137	Nitride nanowire light emitting diodes **2015**,		1
136	Flexible Light-Emitting Diodes Based on Vertical Nitride Nanowires. *Nano Letters*, **2015**, 15, 6958-64	11.5	149
135	Substrate-Free InGaN/GaN Nanowire Light-Emitting Diodes. *Nanoscale Research Letters*, **2015**, 10, 447	5	14
134	High structural quality InGaN/GaN multiple quantum well solar cells. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2015**, 12, 1412-1415		6
133	Color control of nanowire InGaN/GaN light emitting diodes by post-growth treatment. *Nanotechnology*, **2015**, 26, 465203	3.4	18
132	InGaN/GaN core-shell single nanowire light emitting diodes with graphene-based p-contact. *Nano Letters*, **2014**, 14, 2456-65	11.5	154
131	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, 023116	3.4	28
130	Electrical detection of picosecond acoustic pulses in vertical transport devices with nanowires. *Applied Physics Letters*, **2014**, 104, 062102	3.4	2
129	Contact properties to CVD-graphene on GaAs substrates for optoelectronic applications. *Nanotechnology*, **2014**, 25, 335707	3.4	16
128	Integrated photonic platform based on InGaN/GaN nanowire emitters and detectors. *Nano Letters*, **2014**, 14, 3515-20	11.5	148
127	Study of the electrical properties of individual (Ga,Mn)As nanowires. *Semiconductors*, **2014**, 48, 344-349	0.7	2

126	Correlation of microphotoluminescence spectroscopy, scanning transmission electron microscopy, and atom probe tomography on a single nano-object containing an InGaN/GaN multiquantum well system. *Nano Letters*, **2014**, 14, 107-14	11.5	63
125	Experimental and theoretical analysis of transport properties of core-shell wire light emitting diodes probed by electron beam induced current microscopy. *Nanotechnology*, **2014**, 25, 255201	3.4	30
124	GaN Nanowire-Based Ultraviolet Photodetectors **2014**, 179-202		1
123	First demonstration of plasmonic GaN quantum cascade detectors with enhanced efficiency at normal incidence. *Optics Express*, **2014**, 22, 21069-78	3.3	11
122	Controlling the properties of electrodeposited ZnO nanowire arrays for light emitting diode, photodetector and gas sensor applications **2014**,		3
121	Photovoltaic properties of GaAs:Be nanowire arrays. *Semiconductors*, **2013**, 47, 808-811	0.7	3
120	GaN/AlGaN waveguide quantum cascade photodetectors at □1.55 □m with enhanced responsivity and ~40 GHz frequency bandwidth. *Applied Physics Letters*, **2013**, 102, 011135	3.4	41
119	Electrical and Electro-Optical Characterization of Semiconductor Nanowires **2013**, 641-684		1
118	Assessing individual radial junction solar cells over millions on VLS-grown silicon nanowires. *Nanotechnology*, **2013**, 24, 275401	3.4	21
117	Experimental demonstration and observation of a plasmon wave occuring at a GaAs-Au-GaN interface. *Optics Letters*, **2013**, 38, 2425-7	3	
116	Optical properties of GaN-based nanowires containing a single Al(0.14)Ga(0.86)N/GaN quantum disc. *Nanotechnology*, **2013**, 24, 125201	3.4	10
115	Systematic study of near-infrared intersubband absorption of polar and semipolar GaN/AlN quantum wells. *Journal of Applied Physics*, **2013**, 113, 143109	2.5	21
114	Lateral growth and shape of semiconductor nanowires. *Semiconductors*, **2013**, 47, 50-57	0.7	14
113	Characterization and modeling of a ZnO nanowire ultraviolet photodetector with graphene transparent contact. *Journal of Applied Physics*, **2013**, 114, 234505	2.5	95
112	GaN nanowire ultraviolet photodetector with a graphene transparent contact. *Applied Physics Letters*, **2013**, 103, 201103	3.4	119
111	Cubic III-nitride coupled quantum wells towards unipolar optically pumped lasers. *Physica Status Solidi (A) Applications and Materials Science*, **2013**, 210, 455-458	1.6	3
110	Effect of postgrowth heat treatment on the structural and optical properties of InP/InAsP/InP nanowires. *Semiconductors*, **2012**, 46, 175-178	0.7	10
109	Resonant Tunneling Transport in a GaN/AlN Multiple-Quantum-Well Structure. *Applied Physics Express*, **2012**, 5, 052203	2.4	14

108	Photovoltaic properties of GaAsP core-shell nanowires on Si(001) substrate. *Nanotechnology*, **2012**, 23, 265402	3.4	42
107	Effect of diffusion from a lateral surface on the rate of GaN nanowire growth. *Semiconductors*, **2012** , 46, 838-841	0.7	11
106	Self-assembled GaN quantum wires on GaN/AlN nanowire templates. *Nanoscale*, **2012**, 4, 7517-24	7.7	47
105	A simplified GaN/AlGaN quantum cascade detector with an alloy extractor. *Applied Physics Letters*, **2012**, 101, 251101	3.4	19
104	Photoluminescence polarization in strained GaN/AlGaN core/shell nanowires. *Nanotechnology*, **2012**, 23, 325701	3.4	24
103	Two-color GaN/AlGaN quantum cascade detector at short infrared wavelengths of 1 and 1.7 μm. *Applied Physics Letters*, **2012**, 100, 181103	3.4	43
102	Influence of shadow effect on the growth and shape of InAs nanowires. *Journal of Applied Physics*, **2012**, 111, 104317	2.5	40
101	Vertical Transport in GaN/AlGaN Resonant Tunneling Diodes and Superlattices. *Journal of Electronic Materials*, **2012**, 41, 965-970	1.9	9
100	Visualizing highly localized luminescence in GaN/AlN heterostructures in nanowires. *Nanotechnology*, **2012**, 23, 455205	3.4	30
99	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	54
98	Electroabsorption and refractive index modulation induced by intersubband transitions in GaN/AlN multiple quantum wells. *Optics Express*, **2012**, 20, 12541-9	3.3	11
97	Origin of the electrical instabilities in GaN/AlGaN double-barrier structure. *Applied Physics Letters*, **2011**, 99, 142103	3.4	32
96	Double strain state in a single GaN/AlN nanowire: Probing the core-shell effect by ultraviolet resonant Raman scattering. *Physical Review B*, **2011**, 83,	3.3	30
95	Correlation of optical and structural properties of GaN/AlN core-shell nanowires. *Physical Review B*, **2011**, 83,	3.3	57
94	Characterization of high index microsphere resonators in fiber-integrated microfluidic platforms **2011**,		1
93	Ballistic transport in GaN/AlGaN resonant tunneling diodes. *Journal of Applied Physics*, **2011**, 109, 023717	2.5	38
92	Optical properties of wurtzite/zinc-blende heterostructures in GaN nanowires. *Journal of Applied Physics*, **2011**, 110, 064313	2.5	57
91	High degree of polarization of the near-band-edge photoluminescence in ZnO nanowires. *Nanoscale Research Letters*, **2011**, 6, 501	5	13

90	Cathodoluminescence spectra of gallium nitride nanorods. *Nanoscale Research Letters*, **2011**, 6, 631	5	5
89	Femto-second electron transit time characterization in GaN/AlGaN quantum cascade detector at 1.5 micron. *Applied Physics Letters*, **2011**, 99, 202111	3.4	23
88	Nanometer scale spectral imaging of quantum emitters in nanowires and its correlation to their atomically resolved structure. *Nano Letters*, **2011**, 11, 568-73	11.5	153
87	M-plane core-shell InGaN/GaN multiple-quantum-wells on GaN wires for electroluminescent devices. *Nano Letters*, **2011**, 11, 4839-45	11.5	172
86	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, 233107	3.4	59
85	Band offsets in cubic GaN/AlN superlattices. *Physical Review B*, **2011**, 83,	3.3	50
84	Intersubband absorption of cubic GaN/Al(Ga)N quantum wells in the near-infrared to terahertz spectral range. *Physical Review B*, **2011**, 83,	3.3	48
83	Investigation of the electronic transport in GaN nanowires containing GaN/AlN quantum discs. *Nanotechnology*, **2010**, 21, 425206	3.4	30
82	Broadening of intersubband transitions in InGaN/AlInN multiquantum wells. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2010**, 28, C3B17-C3B21	1.3	1
81	Effect of doping on the mid-infrared intersubband absorption in GaN/AlGaN superlattices grown on Si(111) templates. *Applied Physics Letters*, **2010**, 96, 141903	3.4	40
80	GaN-based quantum cascade photodetector with 1.5 [micro sign]m peak detection wavelength. *Electronics Letters*, **2010**, 46, 1685	1.1	14
79	Homogeneous linewidth of the intraband transition at 1.55 □m in GaN/AlN quantum dots. *Applied Physics Letters*, **2010**, 97, 061903	3.4	6
78	Origin of energy dispersion in AlxGa1□N/GaN nanowire quantum discs with low Al content. *Physical Review B*, **2010**, 82,	3.3	27
77	Ultraviolet photodetector based on GaN/AlN quantum disks in a single nanowire. *Nano Letters*, **2010**, 10, 2939-43	11.5	138
76	Photoluminescence polarization properties of single GaN nanowires containing AlxGa1□N/GaN quantum discs. *Physical Review B*, **2010**, 81,	3.3	24
75	Review of nitride infrared intersubband devices **2010**,		2
74	Terahertz intersubband absorption in GaN/AlGaN step quantum wells. *Applied Physics Letters*, **2010**, 97, 191101	3.4	77
73	Polar and semipolar III-nitrides for long wavelength intersubband devices **2010**,		3

72	Growth of intersubband GaN/AlGaN heterostructures **2010**,		3
71	Visible-blind photodetector based on p-i-n junction GaN nanowire ensembles. *Nanotechnology*, **2010**, 21, 315201	3.4	69
70	Growth of Inclined GaAs Nanowires by Molecular Beam Epitaxy: Theory and Experiment. *Nanoscale Research Letters*, **2010**, 5, 1692-7	5	18
69	Structural and optical characterizations of nitrogen-doped ZnO nanowires grown by MOCVD. *Materials Letters*, **2010**, 64, 2112-2114	3.3	24
68	GaN/AlGaN nanostructures for intersubband optoelectronics. *Physica Status Solidi (A) Applications and Materials Science*, **2010**, 207, 1421-1424	1.6	4
67	GaN/AlN quantum disc single-nanowire photodetectors. *Physica Status Solidi (A) Applications and Materials Science*, **2010**, 207, 1323-1327	1.6	10
66	Intersubband optics in GaN-based nanostructures □physics and applications. *Physica Status Solidi (B): Basic Research*, **2010**, 247, 1622-1627	1.3	11
65	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		
64	GaN/AlGaN intersubband optoelectronic devices. *New Journal of Physics*, **2009**, 11, 125023	2.9	71
63	Midinfrared intersubband absorption in GaN/AlGaN superlattices on Si(111) templates. *Applied Physics Letters*, **2009**, 95, 141911	3.4	41
62	Si Incorporation in InP Nanowires Grown by Au-Assisted Molecular Beam Epitaxy. *Journal of Nanomaterials*, **2009**, 2009, 1-7	3.2	11
61	Room temperature intraband Raman emission and ultrafast carrier relaxation in GaN/AlN quantum dots. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2009**, 6, S650-S653		
60	Strain effects in GaN/AlN multi-quantum-well structures for infrared optoelectronics. *Microelectronics Journal*, **2009**, 40, 336-338	1.8	5
59	Ultrafast relaxation and optical saturation of intraband absorption of GaN/AlN quantum dots. *Applied Physics Letters*, **2009**, 94, 132104	3.4	16
58	GaN/AlGaN intersubband optoelectronic devices at telecommunication wavelengths **2009**,		1
57	Potential of semiconductor nanowires for single photon sources **2009**,		4
56	GaN/AlN short-period superlattices for intersubband optoelectronics: A systematic study of their epitaxial growth, design, and performance. *Journal of Applied Physics*, **2008**, 104, 093501	2.5	150
55	Near infrared quantum cascade detector in GaN□AlGaN□AlN heterostructures. *Applied Physics Letters*, **2008**, 92, 011112	3.4	91

54	Intraband emission at 1.48 THz from GaN/AlN quantum dots at room temperature. *Applied Physics Letters*, **2008**, 92, 161105	3.4	19
53	Electrooptical Modulator at Telecommunication Wavelengths Based on GaN/AlN Coupled Quantum Wells. *IEEE Photonics Technology Letters*, **2008**, 20, 724-726	2.2	25
52	Characterization of the Resonant Third-Order Nonlinear Susceptibility of Si-Doped GaN/AlN Quantum Wells and Quantum Dots at 1.5 mum. *IEEE Photonics Technology Letters*, **2008**, 20, 1366-1368	2.2	13
51	High-speed operation of GaN/AlGaN quantum cascade detectors at 1.55 Th. *Applied Physics Letters*, **2008**, 93, 193509	3.4	43
50	Shape modification of III-V nanowires: the role of nucleation on sidewalls. *Physical Review E*, **2008**, 77, 031606	2.4	52
49	Facet and in-plane crystallographic orientations of GaN nanowires grown on Si(111). *Nanotechnology*, **2008**, 19, 155704	3.4	77
48	Wurtzite to zinc blende phase transition in GaAs nanowires induced by epitaxial burying. *Nano Letters*, **2008**, 8, 1638-43	11.5	60
47	Interband and intersubband optical characterization of semipolar (112□2)-oriented GaN/AlN multiple-quantum-well structures. *Applied Physics Letters*, **2008**, 93, 111906	3.4	31
46	Semiconductor nanowires in InP and related material systems: MBE growth and properties **2008**,		1
45	Latest developments in GaN-based quantum devices for infrared optoelectronics. *Journal of Materials Science: Materials in Electronics*, **2008**, 19, 821-827	2.1	11
44	Contactless electroreflectance spectroscopy of inter- and intersub-band transitions in AlInN/GaInN quantum wells. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 503-507		3
43	Near-infrared intersubband emission from GaN/AlN quantum dots and quantum wells. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 2120-2122		2
42	GaN/AlN free-standing nanowires grown by molecular beam epitaxy. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 1556-1558		15
41	Electro-optical intersubband modulators at telecommunication wavelengths based on GaN/AlN quantum wells. *Physica Status Solidi (A) Applications and Materials Science*, **2008**, 205, 1093-1095	1.6	1
40	Growth and characterization of InP nanowires with InAsP insertions. *Nano Letters*, **2007**, 7, 1500-4	11.5	102
39	GaAs nanowires formed by Au-assisted molecular beam epitaxy: Effect of growth temperature. *Journal of Crystal Growth*, **2007**, 301-302, 853-856	1.6	61
38	Nitride-based heterostructures grown by MOCVD for near- and mid-infrared intersubband transitions. *Physica Status Solidi (A) Applications and Materials Science*, **2007**, 204, 1100-1104	1.6	3
37	Nitride intersubband devices: prospects and recent developments. *Physica Status Solidi (A) Applications and Materials Science*, **2007**, 204, 1987-1995	1.6	12

36	Effect of deposition conditions on nanowhisker morphology. *Semiconductors*, **2007**, 41, 865-874	0.7	5
35	Short-wavelength intersubband electroabsorption modulation based on electron tunneling between GaN/AlN coupled quantum wells. *Applied Physics Letters*, **2007**, 90, 223511	3.4	48
34	Short wavelength (=2.13m) intersubband luminescence from GaN/AlN quantum wells at room temperature. *Applied Physics Letters*, **2007**, 90, 121106	3.4	50
33	Au-assisted molecular beam epitaxy of InAs nanowires: Growth and theoretical analysis. *Journal of Applied Physics*, **2007**, 102, 094313	2.5	123
32	Growth of GaN free-standing nanowires by plasma-assisted molecular beam epitaxy: structural and optical characterization. *Nanotechnology*, **2007**, 18, 385306	3.4	103
31	New developments for nitride unipolar devices at 1.3–1.5m wavelengths. *Superlattices and Microstructures*, **2006**, 40, 412-417	2.8	9
30	GaN/AlN quantum dot photodetectors at 1.3–1.5m. *Superlattices and Microstructures*, **2006**, 40, 262-267	2.8	6
29	Growth of thin AlInN/GaInN quantum wells for applications to high-speed intersubband devices at telecommunication wavelengths. *Journal of Vacuum Science & Technology B*, **2006**, 24, 1505		24
28	Indium surfactant effect on AlN/GaN heterostructures grown by metal-organic vapor-phase epitaxy: Applications to intersubband transitions. *Applied Physics Letters*, **2006**, 88, 151902	3.4	48
27	Si-doped GaN/AlN quantum dot superlattices for optoelectronics at telecommunication wavelengths. *Journal of Applied Physics*, **2006**, 100, 044326	2.5	65
26	Observation of hot luminescence and slow inter-sub-band relaxation in Si-doped GaN/AlxGa1xN (x=0.11, 0.25) multi-quantum-well structures. *Journal of Applied Physics*, **2006**, 99, 093513	2.5	12
25	Temperature conditions for GaAs nanowire formation by Au-assisted molecular beam epitaxy. *Nanotechnology*, **2006**, 17, 4025-30	3.4	101
24	Intersubband resonant enhancement of second-harmonic generation in GaN/AlN quantum wells. *Applied Physics Letters*, **2006**, 89, 151101	3.4	30
23	Room temperature demonstration of GaN/AlN quantum dot intraband infrared photodetector at fiber-optics communication wavelength. *Applied Physics Letters*, **2006**, 88, 143101	3.4	62
22	Intraband light absorption in InAs/GaAs quantum dots covered with InGaAs quantum wells. *Semiconductor Science and Technology*, **2006**, 21, 1341-1347	1.8	6
21	Electron confinement in strongly coupled GaN/AlN quantum wells. *Applied Physics Letters*, **2006**, 88, 153113	3.4	44
20	Systematic experimental and theoretical investigation of intersubband absorption in GaN/AlN quantum wells. *Physical Review B*, **2006**, 73,	3.3	222
19	Growth and characterization of AlInN/GaInN quantum wells for high-speed intersubband devices at telecommunication wavelengths **2006**,		3

18	Si-doped GaN/AlN quantum dot superlattices for optoelectronics at telecommunication wavelengths. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 1754-1758	1.6	3
17	Optical and theoretical study of strong electron coupling in double GaN/AlN quantum wells. *Physica Status Solidi (B): Basic Research*, **2006**, 243, 1630-1633	1.3	8
16	GaN/AlGaN superlattices for optoelectronics in the mid-infrared. *Physica Status Solidi (B): Basic Research*, **2006**, 243, 1669-1673	1.3	
15	Intraband photodetection at 1.3–1.5 μm in self-organized GaN/AlN quantum dots. *Physica Status Solidi (B): Basic Research*, **2006**, 243, 3993-3997	1.3	1
14	MBE growth of nitride-based photovoltaic intersubband detectors. *Superlattices and Microstructures*, **2006**, 40, 418-425	2.8	7
13	The role of surface diffusion of adatoms in the formation of nanowire crystals. *Semiconductors*, **2006**, 40, 1075-1082	0.7	45
12	III-Nitride Nanostructures for Infrared Optoelectronics. *Acta Physica Polonica A*, **2006**, 110, 295-301	0.6	4
11	GaN-based quantum dot infrared photodetector operating at 1.38 [micro sign]m. *Electronics Letters* , **2005**, 41, 1077	1.1	32
10	Midinfrared intersubband absorption in lattice-matched AlInN/GaN multiple quantum wells. *Applied Physics Letters*, **2005**, 87, 111106	3.4	78
9	Intraband absorption of doped GaN/AlN quantum dots at telecommunication wavelengths. *Applied Physics Letters*, **2005**, 87, 101912	3.4	36
8	Intraband Transitions on GaN/AlN Quantum Wells Grown on Sapphire (0001) and 6H-SiC Substrates. *Materials Science Forum*, **2004**, 457-460, 1589-1592	0.4	
7	Intersubband absorptions in doped and undoped GaN/AlN quantum wells at telecommunication wavelengths. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2004**, 1, 1451-1455		
6	Spectroscopy of the electron states in self-organized GaN/AlN quantum dots. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2004**, 1, 1456-1460		3
5	Intraband spectroscopy of self-organized GaN/AlN quantum dots. *Physica E: Low-Dimensional Systems and Nanostructures*, **2003**, 17, 60-63	3	5
4	Intersubband Absorptions in Doped and Undoped GaN/AlN Quantum Wells at Telecommunication Wavelengths Grown on Sapphire and 6H-SiC Substrates. *Materials Research Society Symposia Proceedings*, **2003**, 798, 418		
3	Spectroscopy of Intraband Electron Confinement in Self-Assembled GaN/AlN Quantum Dots. *Materials Research Society Symposia Proceedings*, **2003**, 798, 575		
2	Intraband absorptions in GaN/AlN quantum dots in the wavelength range of 1.27–1.4 μm. *Applied Physics Letters*, **2003**, 82, 868-870	3.4	48
1	Intersubband spectroscopy of doped and undoped GaN/AlN quantum wells grown by molecular-beam epitaxy. *Applied Physics Letters*, **2003**, 83, 5196-5198	3.4	79