

CITATION REPORT

List of articles citing

Heavy doping effects in Mg-doped GaN

DOI: 10.1063/1.372098

Journal of Applied Physics, 2000, 87, 1832-1835.

Source: <https://exaly.com/paper-pdf/31876080/citation-report.pdf>

Version: 2024-04-28

This report has been generated based on the citations recorded by exaly.com for the above article. 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.

#	Paper	IF	Citations
328	Electrical transport properties of highly Mg-doped GaN epilayers grown by MOCVD. 2000 , 221, 734-738		9
327	Influence of the Mg precursor on the incorporation of Mg in MOVPE grown GaN.. 2000 , 5, 1		14
326	Equilibrium state of hydrogen in gallium nitride: Theory and experiment. <i>Journal of Applied Physics</i> , 2000 , 88, 4676	2.5	67
325	Temperature-dependent hole transport in GaN. 2001 , 13, 8939-8944		14
324	Gallium nitride based transistors. 2001 , 13, 7139-7157		82
323	Theoretical description of H behavior in GaN p-n junctions. <i>Journal of Applied Physics</i> , 2001 , 90, 5612-5622	2.5	36
322	Diffusion, release, and uptake of hydrogen in magnesium-doped gallium nitride: Theory and experiment. <i>Journal of Applied Physics</i> , 2001 , 89, 3195-3202	2.5	53
321	Low-noise back-illuminated Al/sub x/Ga/sub 1-x/N-based p-i-n solar-blind ultraviolet photodetectors. 2001 , 37, 538-545		48
320	Progress in gallium nitride-based bipolar transistors.		3
319	Optically detected magnetic resonance of the red and near-infrared luminescence in Mg-doped GaN. 2001 , 63,		32
318	Mg related Defect Formation during MOVPE Growth of GaN based Films studied by Transmission Electron Microscopy. 2001 , 693, 110		
317	Detailed deep trap analysis in Mg-doped p-type GaN layers grown by MOVPE. 2001 , 82, 85-87		3
316	Low-Temperature Activation of Mg-Doped GaN with Pd Thin Films. <i>Physica Status Solidi (B): Basic Research</i> , 2001 , 228, 391-393	1.3	2
315	. 2001 , 48, 543-551		59
314	Study of Schottky barrier of Ni on p-GaN. <i>Applied Physics Letters</i> , 2001 , 79, 4536-4538	3.4	42
313	Thermal admittance spectroscopy of Mg-doped GaN Schottky diodes. <i>Journal of Applied Physics</i> , 2001 , 90, 985-993	2.5	28
312	Effect of threading dislocations on AlGaIn/GaN heterojunction bipolar transistors. <i>Applied Physics Letters</i> , 2001 , 78, 2235-2237	3.4	35

311	Mechanism for low temperature activation of Mg-doped GaN with Ni catalysts. <i>Journal of Applied Physics</i> , 2001 , 90, 6500-6504	2.5	19
310	Mg and O codoping in p-type GaN and Al _x Ga _{1-x} N (0. <i>Applied Physics Letters</i> , 2002 , 80, 2910-2912	3.4	44
309	Strong acceptor density and temperature dependences of thermal activation energy of acceptors in a Mg-doped GaN epilayer grown by metalorganic chemical-vapor deposition. <i>Applied Physics Letters</i> , 2002 , 80, 1001-1003	3.4	29
308	Small signal RF performance of AlGaIn/GaN heterojunction bipolar transistors. 2002 , 38, 144		11
307	Magnetic resonance studies of Mg-doped GaN epitaxial layers grown by organometallic chemical vapor deposition. 2002 , 65,		58
306	The doping process and dopant characteristics of GaN. 2002 , 14, R657-R702		78
305	SiC and GaN transistors - is there one winner for microwave power applications?. 2002 , 90, 1032-1047		127
304	Characterization of nitrides by electron paramagnetic resonance (EPR) and optically detected magnetic resonance (ODMR). 2002 , 93, 39-48		18
303	Low-temperature activation of Mg-doped GaN with thin Co and Pt films. 2002 , 190, 339-342		5
302	Electrical characteristics of Mg-doped GaN activated with Ni catalysts. 2002 , 190, 348-351		8
301	The origins of leaky characteristics of Schottky diodes on p-GaN. 2003 , 50, 292-296		41
300	Determination of hydrogen in GaMnN and GaMnMgN by nuclear reaction analysis. 2003 , 70, 207-213		4
299	Configurations, energies, and thermodynamics of the neutral MgH complex in GaN. <i>Journal of Applied Physics</i> , 2003 , 94, 4918	2.5	16
298	Gate leakage suppression and contact engineering in nitride heterostructures. <i>Journal of Applied Physics</i> , 2003 , 94, 5826-5831	2.5	42
297	Novel Method for the Activation of Acceptor Dopant in AlN Introducing Localized Band by Isoelectronic Dopant. 2003 , 798, 164		
296	Gate Leakage Suppression and Contact Engineering in Nitride Heterostructures. 2003 , 798, 249		1
295	Mg-acceptor activation mechanism and transport characteristics in p-type InGaIn grown by metalorganic vapor phase epitaxy. <i>Journal of Applied Physics</i> , 2003 , 93, 3370-3375	2.5	111
294	N vacancy diffusion and trapping in Mg-doped wurtzite GaN. <i>Journal of Applied Physics</i> , 2004 , 96, 2015-2022		19

293	Effect of p-type activation ambient on acceptor levels in Mg-doped GaN. <i>Journal of Applied Physics</i> , 2004 , 96, 415-419	2.5	13
292	Influence of ambient on hydrogen release from p-type gallium nitride. <i>Journal of Applied Physics</i> , 2004 , 95, 76-83	2.5	8
291	Hydrogen isotope exchange and the surface barrier in p-type gallium nitride. <i>Journal of Applied Physics</i> , 2004 , 95, 520-527	2.5	13
290	ANALYSIS OF HIGH DC CURRENT GAIN STRUCTURES FOR GaN/InGaN/GaN HBTs. 2004 , 14, 825-830		1
289	High Voltage AlGaIn/GaN Heterojunction Transistors. 2004 , 14, 225-243		6
288	Study of schottky barrier heights of indium-tin-oxide on p-GaN using x-ray photoelectron spectroscopy and current-voltage measurements. 2004 , 33, 1036-1040		18
287	Mg fluctuation in p-GaN layers and its effects on InGaIn/GaN blue light-emitting diodes dependent on p-GaN growth temperature. 2004 , 33, 445-449		2
286	On the determination of the statistical characteristics of the magnesium acceptor in GaN. 2004 , 36, 445-453		5
285	P-channel InGaIn-HFET structure based on polarization doping. <i>IEEE Electron Device Letters</i> , 2004 , 25, 450-452	4.4	54
284	.		
283	Nonpolar a-plane p-type GaN and p-n Junction Diodes. <i>Journal of Applied Physics</i> , 2004 , 96, 4494-4499	2.5	35
282	Control of Mg doping of GaN in RF-plasma molecular beam epitaxy. 2005 , 278, 443-448		21
281	Magnetic and Transport Properties of Ferromagnetic Semiconductor GaDyN Thin Film. 2005 , 22, 463-465		19
280	Anisotropic Mg incorporation in GaN growth on nonplanar templates. <i>Applied Physics Letters</i> , 2005 , 86, 121901	3.4	15
279	p-type conductivity in cubic (Ga,Mn)N thin films. <i>Applied Physics Letters</i> , 2005 , 86, 152114	3.4	28
278	Luminescence properties of defects in GaN. <i>Journal of Applied Physics</i> , 2005 , 97, 061301	2.5	1461
277	Minority carrier diffusion length in GaN: Dislocation density and doping concentration dependence. <i>Applied Physics Letters</i> , 2005 , 86, 052105	3.4	169
276	Statistics of the Mg acceptor in GaN in the band model. 2006 , 21, 1484-1487		5

275	Theoretical properties of the N vacancy in p-type GaN(Mg,H) at elevated temperatures. <i>Journal of Applied Physics</i> , 2006 , 99, 113506	2.5	11
274	Carrier concentration dependence of acceptor activation energy in p-type ZnO. <i>Applied Physics Letters</i> , 2006 , 88, 202110	3.4	42
273	Surface-state charge fluctuations on the carrier dynamics in InGaN/GaN blue light-emitting diodes with multiquantum barriers. 2006 ,		
272	p-type conduction in a C-doped (1-101)GaN grown on a 7-degree-off oriented (001)Si substrate by selective MOVPE. 2006 , 3, 1425-1428		16
271	Growth and fabrication of AlGaIn-based ultraviolet light emitting diodes on 6H-SiC(0001) substrates and the effect of carrier-blocking layers on their emission characteristics. 2006 , 127, 169-179		2
270	High current gain InGaIn/GaN HBTs with 300°C operating temperature. 2006 , 42, 661		17
269	Electroluminescent and Electrical Characteristics of Polar and Nonpolar InGaIn/GaN Light-Emitting Diodes at Low Temperature. 2006 , 45, 7661-7666		10
268	The effect of Mg doping on GaN nanowires. 2006 , 17, 5735-5739		29
267	Cathodoluminescence studies of carrier concentration dependence for the electron-irradiation effects in p-GaN. <i>Applied Physics Letters</i> , 2007 , 90, 172111	3.4	13
266	On the effect of periodic Mg distribution in GaIn:EMg. <i>Applied Physics Letters</i> , 2007 , 90, 142108	3.4	17
265	Electrical characterization of p-type N-polar and Ga-polar GaN grown by metalorganic chemical vapor deposition. <i>Applied Physics Letters</i> , 2007 , 91, 172105	3.4	28
264	Radiative Recombination Efficiency of InGaIn-Based Light-Emitting Diodes Evaluated at Various Temperatures and Injection Currents. 2007 , 46, L627-L629		8
263	Doping level dependence of electron irradiation-induced minority carrier diffusion length increase in Mg-doped GaN. <i>Applied Physics Letters</i> , 2007 , 91, 092107	3.4	2
262	Transport Parameters for Electrons and Holes. 69-93		19
261	Mg doping in (1 100 1)GaN grown on a 7°off-axis (0 0 1)Si substrate by selective MOVPE. 2007 , 298, 207-210		16
260	High current gain graded GaIn/InGaIn heterojunction bipolar transistors grown on sapphire and SiC substrates by metalorganic chemical vapor deposition. 2007 , 298, 852-856		7
259	Capacitance-Voltage and Current-Voltage Measurements of Nitride Light-Emitting Diodes. 2007 , 54, 3223-3228		21
258	Delta-doping optimization for high quality p-type GaN. <i>Journal of Applied Physics</i> , 2008 , 104, 083512	2.5	45

257	Surface potential of n- and p-type GaN measured by Kelvin force microscopy. <i>Applied Physics Letters</i> , 2008 , 93, 212107	3.4	64
256	Lateral and Vertical Charge Transport in Polar Nitride Heterostructures. 2008 , 111-159		1
255	Reproducible increased Mg incorporation and large hole concentration in GaN using metal modulated epitaxy. <i>Journal of Applied Physics</i> , 2008 , 104, 024902	2.5	50
254	Equivalent-Circuit Analysis for the Electroluminescence-Efficiency Problem of InGaN/GaN Light-Emitting Diodes. 2008 , 47, 2112-2118		11
253	Optimum Rapid Thermal Activation of Mg-Doped p-Type GaN. 2008 , 47, 2865-2867		6
252	Effect of Excitonic Interactions on Abnormal Luminescence Behaviour of InGaN/GaN Light-Emitting Diodes with Electron Tunneling Layer. 2008 , 47, 679-681		
251	III-N Materials, and the State-of-the-Art of Devices and Circuits. 2008 , 3-90		
250	Parallel conduction in p-type gallium nitride homo-structures. 2008 , 23, 095007		2
249	Performance enhancement of GaN ultraviolet avalanche photodiodes with p-type doping. <i>Applied Physics Letters</i> , 2008 , 92, 241103	3.4	38
248	Characterization of plasma etching damage on p-type GaN using Schottky diodes. <i>Journal of Applied Physics</i> , 2008 , 103, 093701	2.5	22
247	Mechanism of carrier injection in (Ni/Au)/p-Al _x Ga _{1-x} N:Mg(0). <i>Applied Physics Letters</i> , 2009 , 95, 163502	3.4	4
246	Mg doping and its effect on the semipolar GaN(112̄) growth kinetics. <i>Applied Physics Letters</i> , 2009 , 95, 171908	3.4	16
245	Simple Linear Optical Binary Measurement Tree for Single Photonic Polarization Qubit. 2009 , 26, 020311		1
244	. 2009 , 30, 919-920		
243	Photoproduction of Vector Meson ρ off Deuteron in QCD Inspired Model. 2009 , 52, 295-301		
242	Automorphisms of Galois coverings of generic m -canonical projections. 2009 , 73, 121-150		
241	Electrical transport phenomena in magnesium-doped p-type GaN. <i>Physica Status Solidi (B): Basic Research</i> , 2009 , 246, 658-663	1.3	1
240	Evidence for two Mg related acceptors in GaN. 2009 , 102, 235501		97

239	Highly conductive modulation doped composition graded p-AlGa _N /(AlN)/Ga _N multiheterostructures grown by metalorganic vapor phase epitaxy. <i>Journal of Applied Physics</i> , 2009 , 106, 013720	2.5	13
238	Theory of high field carrier transport and impact ionization in wurtzite Ga _N . Part I: A full band Monte Carlo model. <i>Journal of Applied Physics</i> , 2009 , 106, 063718	2.5	77
237	Mg-doped Al _{0.85} Ga _{0.15} N layers grown by hot-wall MOCVD with low resistivity at room temperature. 2010 , 4, 311-313		21
236	Current injection efficiency induced efficiency-droop in InGa _N quantum well light-emitting diodes. 2010 , 54, 1119-1124		181
235	Compensation effect of Mg-doped a- and c-plane Ga _N films grown by metalorganic vapor phase epitaxy. 2010 , 312, 3131-3135		24
234	First-principles simulation of Ga _N material and devices: an application to Ga _N APDs. 2010 ,		
233	Measuring the dispersion curve of a PMMA-fibre optic cable using a dye laser. 2010 , 31, 1369-1376		1
232	Photoluminescence and positron annihilation studies on Mg-doped nitrogen-polarity semipolar (101 $\bar{1}$ $\bar{1}$) Ga _N heteroepitaxial layers grown by metalorganic vapor phase epitaxy. <i>Applied Physics Letters</i> , 2010 , 96, 091913	3.4	9
231	Polarization-engineered N-face III \bar{V} nitride quantum well LEDs. 2010 ,		
230	Growth and characterization of ingan for photovoltaic devices. 2010 ,		1
229	Hole carrier concentration and photoluminescence in magnesium doped InGa _N and Ga _N grown on sapphire and Ga _N misoriented substrates. <i>Journal of Applied Physics</i> , 2010 , 108, 023516	2.5	14
228	Dual nature of acceptors in Ga _N and ZnO: The curious case of the shallow MgGa deep state. <i>Applied Physics Letters</i> , 2010 , 96, 142114	3.4	88
227	Polarization-induced hole doping in wide-band-gap uniaxial semiconductor heterostructures. 2010 , 327, 60-4		534
226	Hafnium-doped Ga _N with n-type electrical resistivity in the 10 $\bar{4}$ Ω cm range. <i>Applied Physics Letters</i> , 2011 , 99, 202113	3.4	
225	Effect of doping and polarization on carrier collection in InGa _N quantum well solar cells. <i>Applied Physics Letters</i> , 2011 , 98, 243507	3.4	55
224	Theoretical study of polarization-doped Ga _N -based light-emitting diodes. <i>Applied Physics Letters</i> , 2011 , 98, 101110	3.4	49
223	Asymmetry of carrier transport leading to efficiency droop in GaIn _N based light-emitting diodes. <i>Applied Physics Letters</i> , 2011 , 99, 251115	3.4	110
222	Mg doping of Ga _N by molecular beam epitaxy. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 135406	3	24

221	Effects of hydrogen treatment on ohmic contacts to p-type GaN films. 2011 , 257, 7490-7493		5
220	Impact of doping on carrier recombination and stimulated emission in highly excited GaN:Mg. 2011 , 406, 2990-2993		1
219	The influence of interface states and bulk carrier lifetime on the minority carrier behavior in an illuminated metal/insulator/GaN structure. 2011 , 151, 830-833		
218	Electronic Energy Levels in Group-III Nitrides. 2011 , 390-447		9
217	N-polar III-nitride quantum well light-emitting diodes with polarization-induced doping. <i>Applied Physics Letters</i> , 2011 , 99, 171104	3-4	55
216	Role of stable and metastable Mg ^{II} complexes in p-type GaN for cw blue laser diodes. <i>Applied Physics Letters</i> , 2011 , 98, 213505	3-4	55
215	Dependence of Mg acceptor levels in InN on doping density and temperature. <i>Journal of Applied Physics</i> , 2011 , 110, 093505	2.5	10
214	Electro-structural evolution and Schottky barrier height in annealed Au/Ni contacts onto p-GaN. <i>Journal of Applied Physics</i> , 2011 , 110, 123703	2.5	43
213	Effect of Mg Doping on the Photoluminescence of GaN:Mg Films by Radio-Frequency Plasma-Assisted Molecular Beam Epitaxy. 2011 , 28, 067807		5
212	Simulation of Nonpolar p-GaN/i-N/n-GaN Solar Cells. 2012 , 2012, 1-8		9
211	Temperature-dependent efficiency droop in InGaN-based light-emitting diodes induced by current crowding. 2012 , 27, 055013		14
210	Effects of growth temperature on Mg-doped GaN grown by ammonia molecular beam epitaxy. <i>Applied Physics Letters</i> , 2012 , 101, 102106	3-4	29
209	Polarization Matching in AlGaN-Based Multiple-Quantum-Well Deep Ultraviolet Laser Diodes on AlN Substrates Using Quaternary AlInGaN Barriers. 2012 , 30, 3017-3025		6
208	Defect characterization in Mg-doped GaN studied using a monoenergetic positron beam. <i>Journal of Applied Physics</i> , 2012 , 111, 014508	2.5	28
207	Charge carrier mobility in gallium nitride. 2012 , 23, 23-27		7
206	Effect of growth pressure on the morphology evolution and doping characteristics in nonpolar a-plane GaN. 2012 , 258, 3565-3570		5
205	Critical issues for interfaces to p-type SiC and GaN in power devices. 2012 , 258, 8324-8333		47
204	Analytic model for the efficiency droop in semiconductors with asymmetric carrier-transport properties based on drift-induced reduction of injection efficiency. <i>Applied Physics Letters</i> , 2012 , 100, 161106	3-4	119

203	Influence of Mg-containing precursor flow rate on the structural, electrical and mechanical properties of Mg-doped GaN thin films. 2012 , 136, 796-801		8
202	Properties and modelling of InGaN for high temperature photovoltaics. 2012 ,		
201	AlGa _N /Ga _N heterojunction bipolar transistors by ammonia molecular beam epitaxy. 2012 , 209, 216-220		9
200	Effects of growth conditions on the acceptor activation of Mg-doped p-GaN. 2012 , 133, 1029-1033		24
199	Polarization-Induced GaN-on-Insulator E/D Mode p-Channel Heterostructure FETs. <i>IEEE Electron Device Letters</i> , 2013 , 34, 852-854	4-4	49
198	Dependence of the Mg-related acceptor ionization energy with the acceptor concentration in p-type GaN layers grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2013 , 103, 032102	3-4	75
197	Numerical Investigation of High-Efficiency InGa _N -Based Multijunction Solar Cell. 2013 , 60, 4140-4145		9
196	High p-type conduction in high-Al content Mg-doped AlGa _N . <i>Applied Physics Letters</i> , 2013 , 102, 012105	3-4	99
195	Analysis of Internal Quantum Efficiency and Current Injection Efficiency in III-Nitride Light-Emitting Diodes. 2013 , 9, 212-225		153
194	Tunnel-injection GaN quantum dot ultraviolet light-emitting diodes. <i>Applied Physics Letters</i> , 2013 , 102, 041103	3-4	56
193	Enhanced Mg Doping Efficiency in P-Type GaN by Indium-Surfactant-Assisted Delta Doping Method. 2013 , 6, 041001		17
192	Development of AlGa _N -based graded-index-separate-confinement-heterostructure deep UV emitters by molecular beam epitaxy. 2013 , 31, 03C117		30
191	Site preference of Mg acceptors and improvement of p-type doping efficiency in nitride alloys. 2013 , 25, 245801		1
190	Effects of thin heavily Mg-doped GaN capping layer on ohmic contact formation of p-type GaN. 2013 , 28, 105020		11
189	Advances in astronomy (Scientific session of the Physical Sciences Division of the Russian Academy of Sciences, 27 February 2013). 2013 , 56, 704-737		
188	Temperature-Independent Two-Dimensional Hole Gas Confined at Ga _N /AlGa _N Heterointerface. 2013 , 6, 091002		15
187	Relative intensity noise and emission linewidth of polariton laser diodes. 2013 , 88,		3
186	Investigations of Polarization-Induced Hole Accumulations and Vertical Hole Conductions in Ga _N /AlGa _N Heterostructures. 2013 , 52, 08JJ05		16

185	Recent progress in metal-organic chemical vapor deposition of $\left(000\bar{1}\right)$ N-polar group-III nitrides. 2014 , 29, 113001		129
184	Fabrication of p-channel heterostructure field effect transistors with polarization-induced two-dimensional hole gases at metal/polar GaN/AlInGaN interfaces. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 175103	3	52
183	Generation and transportation mechanisms for two-dimensional hole gases in GaN/AlGaIn/GaN double heterostructures. <i>Journal of Applied Physics</i> , 2014 , 115, 153707	2.5	33
182	Improvement on InGaIn-based light emitting diodes using p-GaN layer grown at low temperature in full N ₂ environment. 2014 , 211, 1175-1178		1
181	AlGaIn-Based Vertical Injection Laser Diodes Using Inverse Tapered p-Waveguide for Efficient Hole Transport. 2014 , 50, 166-173		10
180	Elimination of defects in InMg codoped GaN layers probed by strain analysis. 2014 , 53, 060301		5
179	Tunnel-injection quantum dot deep-ultraviolet light-emitting diodes with polarization-induced doping in III-nitride heterostructures. <i>Applied Physics Letters</i> , 2014 , 104, 021105	3.4	68
178	Direct Evidence of Mg Incorporation Pathway in Vapor-Liquid-Solid Grown p-type Nonpolar GaN Nanowires. 2014 , 118, 24165-24172		18
177	Smooth surface morphology and low dislocation density of p-GaN using indium-assisted growth. 2014 , 116, 1561-1566		4
176	Influence of a deep-level-defect band formed in a heavily Mg-doped GaN contact layer on the Ni/Au contact to p-GaN. 2015 , 24, 096804		3
175	Optical and electrical properties of Mg-doped AlN nanowires grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2015 , 106, 213105	3.4	43
174	Ab initio models for polycrystalline diamond constructed from cold-compressed disordered graphite. 2015 , 2, 045601		1
173	Effects of Mg Doping on the Performance of InGaIn Films Made by Reactive Sputtering. 2015 , 44, 210-216		8
172	Enhanced Performance of GaInN LEDs by Abrupt Mg Doped p-AlGaIn Electron Blocking Layer. <i>ECS Journal of Solid State Science and Technology</i> , 2015 , 4, R44-R47	2	1
171	Electrochemical removal of hydrogen atoms in Mg-doped GaN epitaxial layers. <i>Journal of Applied Physics</i> , 2015 , 117, 185702	2.5	7
170	Demonstration of low resistance ohmic contacts to p-type (202 1) GaN. 2015 , 30, 075007		12
169	Conductivity enhancement in AlGaIn:Mg by suppressing the incorporation of carbon impurity. 2015 , 8, 051001		16
168	Defect-engineered GaIn:Mg nanowire arrays for overall water splitting under violet light. <i>Applied Physics Letters</i> , 2015 , 106, 113105	3.4	22

167	Electrical properties of Si doped Ga ₂ O ₃ films grown by pulsed laser deposition. 2015 , 26, 9624-9629		43
166	Comprehensive study of the electronic and optical behavior of highly degenerate p-type Mg-doped GaN and AlGa _N . <i>Journal of Applied Physics</i> , 2015 , 117, 045710	2.5	41
165	Increased p-type conductivity through use of an indium surfactant in the growth of Mg-doped GaN. <i>Applied Physics Letters</i> , 2015 , 106, 222103	3.4	26
164	An electrically injected AlGa _N nanowire laser operating in the ultraviolet-C band. <i>Applied Physics Letters</i> , 2015 , 107, 043101	3.4	70
163	Cu ₂ O Homojunction Solar Cells: F-Doped N-type Thin Film and Highly Improved Efficiency. 2015 , 119, 22803-22811		56
162	The effect of thermal annealing on the optical and electrical properties of ZnO epitaxial films grown on n-GaAs (001). 2015 , 5, 12358-12364		2
161	Analysis on the enhanced hole concentration in p-type GaN grown by indium-surfactant-assisted Mg delta doping. <i>Physica Status Solidi (B): Basic Research</i> , 2015 , 252, 1109-1115	1.3	6
160	The Science and Practice of Metal-Organic Vapor Phase Epitaxy (MOVPE). 2015 , 95-160		3
159	Hall-effect measurements of metalorganic vapor-phase epitaxy-grown p-type homoepitaxial GaN layers with various Mg concentrations. 2016 , 55, 05FH03		2
158	Modeling and simulation of bulk gallium nitride power semiconductor devices. 2016 , 6, 055006		37
157	Silver free III-nitride flip chip light-emitting-diode with wall plug efficiency over 70% utilizing a GaN tunnel junction. <i>Applied Physics Letters</i> , 2016 , 109, 191104	3.4	58
156	High hole mobility p-type GaN with low residual hydrogen concentration prepared by pulsed sputtering. 2016 , 4, 086103		46
155	Investigation of amber light-emitting diodes based on InGa _N /Al _N /AlGa _N quantum wells. 2016 , 55, 05FJ06		7
154	Polarity in GaN and ZnO: Theory, measurement, growth, and devices. 2016 , 3, 041303		85
153	Effect of Back Diffusion of Mg Dopants on Optoelectronic Properties of InGa _N -Based Green Light-Emitting Diodes. 2016 , 33, 117302		4
152	An unambiguous identification of 2D electron gas features in the photoluminescence spectrum of AlGa _N /Ga _N heterostructures. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 265107	3	7
151	Transient optical diffraction of GaN/aqueous interfaces: Interfacial carrier mobility dependence on surface reactivity. 2016 , 649, 1-7		9
150	Ohmic contacts to Gallium Nitride materials. 2016 , 383, 324-345		153

149	Effects of active region design on gain and carrier injection and transport of CW $\bar{\bar{2}}\bar{1}$ semipolar InGaN laser diodes. 2016 , 9, 092104		6
148	Demonstration of a III-nitride edge-emitting laser diode utilizing a GaN tunnel junction contact. 2016 , 24, 7816-22		48
147	Influence of Al/Si Codiffusion on Current Gain Deterioration in AlGaIn/GaN Single Heterojunction Bipolar Transistors. 2016 , 63, 4262-4266		5
146	Self-compensation due to point defects in Mg-doped GaN. 2016 , 93,		85
145	A low resistivity n ⁺⁺ -InGaIn/p ⁺⁺ -GaIn polarization-induced tunnel junction. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 115103	3	1
144	Enhanced light extraction in 260 nm light-emitting diode with a highly transparent p-AlGaIn layer. 2016 , 9, 012102		48
143	Electrical properties of n-type AlGaIn with high Si concentration. 2016 , 55, 05FE02		7
142	Polarization induced three-dimensional hole gas in compositionally graded In _x Ga _{1-x} N layer. 2016 , 9, 075502		6
141	Visible-Blind APD Heterostructure Design With Superior Field Confinement and Low Operating Voltage. 2016 , 28, 39-42		21
140	Suppression of Mg propagation into subsequent layers grown by MOCVD. <i>Journal of Applied Physics</i> , 2017 , 121, 025106	2.5	20
139	On the mechanism of highly efficient p-type conduction of Mg-doped ultra-wide-bandgap AlN nanostructures. <i>Applied Physics Letters</i> , 2017 , 110, 032102	3-4	59
138	Relationship between lattice relaxation and electrical properties in polarization doping of graded AlGaIn with high AlN mole fraction on AlGaIn template. 2017 , 10, 025502		12
137	Hall-effect measurements of metalorganic vapor-phase epitaxy-grown p-type homoepitaxial GaIn layers with various Mg concentrations. 2017 , 56, 031001		46
136	Combination of Equilibrium and Nonequilibrium Carrier Statistics Into an Atomistic Quantum Transport Model for Tunneling Heterojunctions. 2017 , 64, 2512-2518		13
135	Electrostatic Doping in Semiconductor Devices. 2017 , 64, 3044-3055		67
134	Improvement of Ohmic contact to p-GaIn by controlling the residual carbon concentration in p ⁺⁺ -GaIn layer. 2017 , 467, 1-5		8
133	Abrupt GaIn/p-GaIn:Mg junctions grown via metalorganic chemical vapor deposition. 2017 , 10, 111002		5
132	Group III Nitrides. 2017 , 1-1		7

131	Identification of the spatial location of deep trap states in AlGa _N /Ga _N heterostructures by surface photovoltage spectroscopy. 2017 , 112, 249-256		2
130	The influence of nitrogen doping on the electrical and vibrational properties of Cu ₂ O. <i>Physica Status Solidi (B): Basic Research</i> , 2017 , 254, 1600421	1.3	11
129	Substrates and Materials. 2017 , 27-52		
128	High-power Ga _N diode lasers and their applications. 2017 ,		1
127	. 2017 ,		
126	High hole concentration in Mg-doped Al _N /AlGa _N superlattices with high Al content. 2018 , 57, 04FH09		26
125	Influence of high Mg doping on the microstructural and opto-electrical properties of AlGa _N alloys. 2018 , 119, 150-156		3
124	Effect of Mg-Preflow for p-AlGa _N Electron Blocking Layer on the Electroluminescence of Green LEDs with V-Shaped Pits. 2018 , 35, 027301		
123	Minority Carrier Injection in High-Barrier Si-Schottky Diodes. 2018 , 65, 1276-1282		4
122	Review of technology for normally-off HEMTs with p-Ga _N gate. 2018 , 78, 96-106		95
121	Comparative Analysis of Defects in Mg-Implanted and Mg-Doped Ga _N Layers on Freestanding Ga _N Substrates. 2018 , 13, 403		12
120	III-Nitride Short Period Superlattices for Deep UV Light Emitters. 2018 , 8, 2362		6
119	The origin of carbon-related carrier compensation in p-type Ga _N layers grown by MOVPE. <i>Journal of Applied Physics</i> , 2018 , 124, 215701	2.5	46
118	Gate-Recessed E-mode p-Channel HFET With High On-Current Based on Ga _N /Al _N 2D Hole Gas. <i>IEEE Electron Device Letters</i> , 2018 , 39, 1848-1851	4.4	46
117	Wide range doping control and defect characterization of Ga _N layers with various Mg concentrations. <i>Journal of Applied Physics</i> , 2018 , 124, 165706	2.5	31
116	Theory and Design of Electron Blocking Layers for III-N-Based Laser Diodes by Numerical Simulation. 2018 , 54, 1-11		7
115	Theory and Design of Electron Blocking Layers for III-N Based Laser Diodes by Numerical Simulation. 2018 ,		1
114	Lateral Current Spreading in III-N Ultraviolet Vertical-Cavity Surface-Emitting Lasers Using Modulation-Doped Short Period Superlattices. 2018 , 54, 1-7		13

113	Improved Mg Dopant Activation in p-GaN and Enhanced Electroluminescence in InGaN/GaN LEDs by Plasma Immersion Ion Implantation of Phosphorus. 2018 , 215, 1800174		1
112	Molecular beam epitaxy and characterization of Mg-doped GaN epilayers grown on Si (0 0 1) substrate through controlled nanowire coalescence. 2018 , 498, 109-114		9
111	Charge carrier transport properties of Mg-doped Al _{0.6} Ga _{0.4} N grown by molecular beam epitaxy. 2018 , 33, 085005		12
110	Point defects in group-III nitrides. 2018 , 27-61		3
109	Temperature-Dependent Leakage Current Characteristics of Homojunction GaN p-i-n Rectifiers Using Ion-Implantation Isolation. 2019 , 66, 4273-4278		11
108	Cp2Mg in-situ monitoring in a MOVPE reactor using a quantum cascade laser. 2019 , 58, SC1013		
107	A p-Channel GaN Heterostructure Tunnel FET With High ON/OFF Current Ratio. 2019 , 66, 2916-2922		3
106	The self-compensation effect of heavily Mg doped p-GaN films studied by SIMS and photoluminescence. 2019 , 133, 106177		3
105	Emergence of high quality sputtered III-nitride semiconductors and devices. 2019 , 34, 093003		14
104	Electrically pumped green lasing action from InGaN/GaN MQW heterojunction with a p-NiO cap layer. 2019 , 6, 095914		
103	Performance enhancement of UV quantum well light emitting diode through structure optimization. <i>Optical and Quantum Electronics</i> , 2019 , 51, 1	2.4	10
102	Thermal Design Considerations for III-N Vertical-Cavity Surface-Emitting Lasers Using Electro-Opto-Thermal Numerical Simulations. 2019 , 55, 1-8		2
101	III-Nitride p-channel transistors. 2019 , 417-434		
100	Mg and In Codoped p-type AlN Nanowires for pn Junction Realization. 2019 , 19, 8357-8364		19
99	Effects of microstructure and growth conditions on quantum emitters in gallium nitride. 2019 , 7, 081106		10
98	Wurtzite phonons and the mobility of a GaN/AlN 2D hole gas. <i>Applied Physics Letters</i> , 2019 , 114, 253501	3,4	14
97	Enhanced hole concentration and improved surface morphology for nonpolar a-plane p-type AlGaIn/GaN superlattices grown with indium-surfactant. 2019 , 130, 396-400		3
96	Growth and thermal annealing for acceptor activation of p-type (Al)GaIn epitaxial structures: Technological challenges and risks. 2019 , 488, 688-695		6

95	Enhanced water splitting performance of GaN nanowires fabricated using anode aluminum oxide templates.. 2019 , 9, 14937-14943	8
94	Effects of V-pits covering layer position on the optoelectronic performance of InGaN green LEDs. 2019 , 40, 052801	7
93	Atomic resolution structural analysis of magnesium segregation at a pyramidal inversion domain in a GaN epitaxial layer. 2019 , 12, 031004	12
92	III-Nitride Deep UV LED Without Electron Blocking Layer. 2019 , 11, 1-11	21
91	Polarization doping technology towards high performance GaN-based heterostructure devices. 2019 , 479, 012052	
90	Gate length effect on trapping properties in AlGaIn/GaN high-electron-mobility transistors. 2019 , 34, 045011	4
89	Strain-free GaN/InAlN chirped short-period superlattice electron-blocking layer for 450 nm InGaIn laser diode. 2019 , 29, 056204	5
88	Carbon-doped MBE GaN: Spectroscopic insights. 2019 , 514, 29-35	5
87	Performance Investigation of a p-Channel Hetero-Junction GaN Tunnel FET. 2019 ,	0
86	Deep-ultraviolet integrated photonic and optoelectronic devices: A prospect of the hybridization of group III nitrides, III oxides, and two-dimensional materials. 2019 , 40, 121801	17
85	Growth and Characterization of Vertical and Lateral p-n Junctions Formed by Selective-Area p-GaN MOVPE on Patterned Templates. 2019 , 216, 1800677	9
84	Optimization of Metal-Organic Chemical Vapor Deposition Regrown n-GaN. <i>Physica Status Solidi (B): Basic Research</i> , 2020 , 257, 1900436	1-3 4
83	Overview of carrier compensation in GaN layers grown by MOVPE: toward the application of vertical power devices. 2020 , 59, SA0804	19
82	Experimental Determination of Velocity-Field Characteristic of Holes in GaN. <i>IEEE Electron Device Letters</i> , 2020 , 41, 23-25	4-4 3
81	Piezoelectric Electron-Phonon Interaction from Ab Initio Dynamical Quadrupoles: Impact on Charge Transport in Wurtzite GaN. 2020 , 125, 136602	20
80	Phosphorus implantation of Mg-doped (Al)GaIn heterostructures: structural examination and depth profiling. 2020 , 31, 17892-17902	1
79	Advances for Enhanced GaN-Based HEMT Devices with p-GaN Gate. 2020 , 1014, 75-85	
78	Prospects for Wide Bandgap and Ultrawide Bandgap CMOS Devices. 2020 , 67, 4010-4020	38

77	Thermally enhanced hole injection and breakdown in a Schottky-metal/p-GaN/AlGaIn/GaN device under forward bias. <i>Applied Physics Letters</i> , 2020 , 117, 043501	3-4	6
76	Light-emitting diodes with AlN polarization-induced buried tunnel junctions: A second look. <i>Applied Physics Letters</i> , 2020 , 117, 061104	3-4	5
75	Technologies for Normally-off GaN HEMTs. 2020 , 137-175		
74	High temperature electrical transport properties of MBE-grown Mg-doped GaN and AlGaIn materials. <i>Journal of Applied Physics</i> , 2020 , 128, 085703	2.5	2
73	Influence of implanted Mg concentration on defects and Mg distribution in GaN. <i>Journal of Applied Physics</i> , 2020 , 128, 065701	2.5	6
72	Effects of V/III ratio and Cp2Mg flow rate on characteristics of non-polar a-plane Mg-delta-doped p-AlGaIn epi-layer. 2020 , 145, 106632		2
71	Defect evolution in Mg ions implanted GaN upon high temperature and ultrahigh N2 partial pressure annealing: Transmission electron microscopy analysis. <i>Journal of Applied Physics</i> , 2020 , 127, 105106	2.5	20
70	Theoretical research on p-type doping two-dimensional GaN based on first-principles study. 2020 , 44, 6058-6067		7
69	Three-dimensional measurement of Mg dopant distribution and electrical activity in GaN by correlative atom probe tomography and off-axis electron holography. <i>Journal of Applied Physics</i> , 2020 , 127, 065702	2.5	7
68	Pinning of energy transitions of defects, complexes, and surface states in AlGaIn alloys. <i>Applied Physics Letters</i> , 2020 , 116, 032102	3-4	5
67	Mg acceptor activation mechanism and hole transport characteristics in highly Mg-doped AlGaIn alloys. 2020 , 29, 058103		2
66	Mg3N2 nanocrystallites formation during the GaN:Mg layers growth by the NH3-MBE technique. 2021 , 554, 125963		0
65	Electronic properties and atomic structure of Mg-doped multilayer g-GaN base on first-principles. 2021 , 539, 148249		3
64	Negative electron affinity of the GaN photocathode: a review on the basic theory, structure design, fabrication, and performance characterization..		3
63	Shallow and Deep States of Beryllium Acceptor in GaN: Why Photoluminescence Experiments Do Not Reveal Small Polarons for Defects in Semiconductors. 2021 , 126, 027401		9
62	Origin of blue luminescence in Mg-doped GaN. 2021 , 11, 035131		1
61	Next generation electronics on the ultrawide-bandgap aluminum nitride platform. 2021 , 36, 044001		17
60	p-type conductivity in GaN:Zn monocrystals grown by ammonothermal method. <i>Journal of Applied Physics</i> , 2021 , 129, 135702	2.5	1

59	High-Temperature Spontaneous Emission Quantum Efficiency Analysis of Different InGaN MQWs for Future Power Electronics Applications. 2021 , 9, 1555-1564		1
58	Demonstration of polarization-induced hole conduction in composition-graded AlInN layers grown by metalorganic chemical vapor deposition. <i>Applied Physics Letters</i> , 2021 , 118, 162102	3-4	0
57	III-nitride semiconductor lasers grown on Si. <i>Progress in Quantum Electronics</i> , 2021 , 77, 100323	9-1	13
56	Review of Recent Progress on Vertical GaN-Based PN Diodes. 2021 , 16, 101		7
55	High-conductivity polarization-induced 2D hole gases in undoped GaN/AlN heterojunctions enabled by impurity blocking layers. <i>Journal of Applied Physics</i> , 2021 , 130, 025703	2-5	7
54	Design and simulation of gallium nitride trench MOSFETs for applications with high lifetime demand. 2021 , 20, 1685-1693		
53	Electrical properties and structural defects of p-type GaN layers grown by halide vapor phase epitaxy. 2021 , 566-567, 126173		4
52	Reduction in operating voltage of AlGaIn homojunction tunnel junction deep-UV light-emitting diodes by controlling impurity concentrations. 2021 , 14, 084001		7
51	Substantial P-Type Conductivity of AlN Achieved via Beryllium Doping. 2021 , 33, e2104497		12
50	Enhanced performance of a flexible and wearable piezoelectric nanogenerator using semi-insulating GaN:Mg/ZnO coaxial nanowires. 2021 , 90, 106552		1
49	Structural Defects in GaN-Based Materials and Their Relation to GaN-Based Laser Diodes. 2013 , 207-245		1
48	Control of n-type electrical conductivity for cubic boron nitride (c-BN) epitaxial layers by Si doping. <i>Applied Physics Letters</i> , 2020 , 116, 162104	3-4	6
47	Effects of AlInN graded polarization-dependent doped top cladding on the performance of deep ultra-violet laser diode emitting at ~271 nm wavelength. 2021 , 36, 015006		2
46	The Doping Dependence of the Thermal Conductivity of Bulk Gallium Nitride Substrates. 2020 , 142,		7
45	An electrically injected AlGaIn nanowire defect-free photonic crystal ultraviolet laser. 2019 , 27, 5843-5850		18
44	On the origin for the hole confinement into apertures for GaN-based VCSELs with buried dielectric insulators. 2020 , 28, 8668-8679		6
43	Influences of p-type layer structure and doping profile on the temperature dependence of the forward voltage characteristic of GaInN light-emitting diode. 2015 , 64, 107801		1
42	GaN, hexagonal modification: Hall mobility. 2008 , 256-258		

41	Optimized growth of p-type AlGa _N electron blocking layer in the GaN-based LED. 2011 , 60, 016108		3
40	Minority Carrier Transport in ZnO and Related Materials. 2012 , 317-347		
39	Optical-Electrical-Thermal Effect on Efficiency Droop in Large Size Light Emitting Diode Chips. 2014 , 15, 046506		
38	GaN-Based Blue and Green Laser Diodes. 2017 , 361-389		
37	On the effect of high Mg doping on the polarity of GaN. 2018 , 307-310		
36	Electron beam irradiation of gallium nitride-on-silicon betavoltaics fabricated with a triple mesa etch. <i>Journal of Applied Physics</i> , 2021 , 130, 174503	2.5	2
35	Optimization of the growth of GaN on SiC substrate. 2021 , 130, 174503		
34	Effects of 532nm laser-assisted annealing on metal contact to p-GaN. 2022 , 140, 106371		0
33	Effects of polarized-induced doping and graded composition in an advanced multiple quantum well InGa _N /Ga _N UV-LED for enhanced light technology. 2022 , 140, 106371		0
32	Very High Density (>10 ¹⁴ cm ⁻²) Polarization-Induced 2D Hole Gases Observed in Undoped Pseudomorphic InGa _N /Al _N Heterostructures. 2022 , 140, 106371		3
31	A GaN Complementary FET Inverter With Excellent Noise Margins Monolithically Integrated With Power Gate-Injection HEMTs. 2022 , 69, 51-56		8
30	Regrowth-free fabrication of high-current-gain AlGa _N /Ga _N heterojunction bipolar transistor with N-p-n configuration. 2022 , 15, 046506		3
29	Performance Enhancement of AlInGa _N Quantum Well based UV-LED. 2021 , 15, 046506		
28	Exploration on performance of two-dimensional GaN photocathodes with uniform-doping and variable-doping structure. <i>International Journal of Modern Physics B</i> , 2022 , 36, 2150017	1.1	
27	Bottom tunnel junction-based blue LED with a thin Ge-doped current spreading layer. <i>Applied Physics Letters</i> , 2022 , 120, 171104	3.4	0
26	Mg-doping and free-hole properties of hot-wall MOCVD GaN. <i>Journal of Applied Physics</i> , 2022 , 131, 185704	0.4	5
25	Incorporation of Magnesium into GaN Regulated by Intentionally Large Amounts of Hydrogen during Growth by MOCVD. <i>Physica Status Solidi (B): Basic Research</i> , 2022 , 65, 2100017	1.3	
24	Towards n-type conductivity in hexagonal boron nitride. <i>Nature Communications</i> , 2022 , 13, 3725	17.4	4

23	Anisotropic-strain-enhanced hole mobility in GaN by lattice matching to ZnGeN ₂ and MgSiN ₂ . <i>Applied Physics Letters</i> , 2022 , 120, 202106	3.4	0
22	Multiscale simulations of uni-polar hole transport in (In,Ga)N quantum well systems. <i>Optical and Quantum Electronics</i> , 2022 , 54,	2.4	0
21	III-Nitride Nanostructures: Emerging Applications for Micro-LEDs, Ultraviolet Photonics, Quantum Optoelectronics, and Artificial Photosynthesis. <i>Progress in Quantum Electronics</i> , 2022 , 100401	9.1	5
20	High-Efficient Water Splitting Using Nanostructured Conical GaN. <i>Journal of the Electrochemical Society</i> ,	3.9	
19	Influence of Mg doping level at the initial growth stage on the gate reliability of p-GaN gate HEMTs. <i>Journal Physics D: Applied Physics</i> , 2022 , 55, 355103	3	1
18	Vertical AlGa _N Deep Ultraviolet Light Emitting Diodes with Polarization Enhanced p-AlGa _N Epilayer on Si Substrate. <i>ECS Journal of Solid State Science and Technology</i> , 2022 , 11, 066003	2	2
17	An Enhancement-mode GaN p-FET with Improved Breakdown Voltage. <i>IEEE Electron Device Letters</i> , 2022 , 1-1	4.4	3
16	On the conduction mechanism in compositionally graded AlGa _N . 2022 , 121, 072106		2
15	AlGa _N nanowire deep ultraviolet LEDs with polarization enhanced tunnel junction and p-AlGa _N layer by molecular beam epitaxy. 2022 , 40, 050602		1
14	Origins of the Schottky Barrier to a 2DHG in a Au/Ni/GaN/AlGa _N /GaN Heterostructure.		0
13	Tracking of point defects in the full compositional range of AlGa _N via photoluminescence spectroscopy.		1
12	Tuning the p-type doping of GaN over three orders of magnitude via efficient Mg doping during halide vapor phase epitaxy. 2022 , 132, 145703		2
11	Electrostatic Doping and Devices. 2023 , 371-389		0
10	Magnesium Doping Profile Control in p-GaN Layers Grown by Metalorganic Chemical Vapor Deposition. 2022 , 126962		0
9	GHz-Speed GaN/AlN p-channel Heterojunction Field Effect Transistors. 2022 , 79-105		0
8	Polarization-Induced 2D Hole Gases in Undoped (In)Ga _N /AlN Heterostructures. 2022 , 19-78		0
7	Gallium Nitride-based Materials as Promising Catalysts for CO ₂ Reduction: A DFT Study on the Effect of CO ₂ Coverage and the Incorporation of Mg Doping or Substitutional In.		0
6	Towards Efficient Electrically-Driven Deep UVC Lasing: Challenges and Opportunities. 2023 , 13, 185		0

- 5 Growth of p-type GaN □The role of oxygen in activation of Mg-doping. **2023**, 5, 100036 ○
- 4 Significant improvement of injection efficiency in deep-UV LD structures by light Mg doping in p-core layer. **2023**, 62, SC1091 ○
- 3 Investigation of conductivity modulation in vertical GaN-on-GaN PiN diode under high current density. **2023**, 122, 092102 ○
- 2 Determination of CN deep donor level in p-GaN with heavy Mg doping via a carrier statistics approach. **2023**, 133, 125706 ○
- 1 Activation of Mg impurities in epitaxial p-GaN with rapid thermal annealing assisted supercritical fluid treatment. ○