Stacia Keller

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244	6,918	42	73
papers	citations	h-index	g-index
253	7,810	3.1	5.67
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
244	Origin of defect-insensitive emission probability in In-containing (Al,In,Ga)N alloy semiconductors. *Nature Materials*, **2006**, 5, 810-6	27	548
243	Growth of Fe doped semi-insulating GaN by metalorganic chemical vapor deposition. *Applied Physics Letters*, **2002**, 81, 439-441	3.4	294
242	Development of gallium-nitride-based light-emitting diodes (LEDs) and laser diodes for energy-efficient lighting and displays. *Acta Materialia*, **2013**, 61, 945-951	8.4	283
241	Crystallographic orientation dependence of dopant and impurity incorporation in GaN films grown by metalorganic chemical vapor deposition. *Journal of Crystal Growth*, **2009**, 311, 3817-3823	1.6	170
240	Demonstration of Nonpolarm-Plane InGaN/GaN Light-Emitting Diodes on Free-Standingm-Plane GaN Substrates. *Japanese Journal of Applied Physics*, **2005**, 44, L173-L175	1.4	170
239	High internal and external quantum efficiency InGaN/GaN solar cells. *Applied Physics Letters*, **2011**, 98, 021102	3.4	155
238	Polarization effects in AlGaN/GaN and GaN/AlGaN/GaN heterostructures. *Journal of Applied Physics* , **2003**, 93, 10114-10118	2.5	151
237	Infrared and Raman-scattering studies in single-crystalline GaN nanowires. *Chemical Physics Letters*, **2001**, 345, 245-251	2.5	143
236	Realization of wide electron slabs by polarization bulk doping in graded III�V nitride semiconductor alloys. *Applied Physics Letters*, **2002**, 81, 4395-4397	3.4	136
235	Memory Effect and Redistribution of Mg into Sequentially Regrown GaN Layer by Metalorganic Chemical Vapor Deposition. *Japanese Journal of Applied Physics*, **2003**, 42, 50-53	1.4	135
234	Recent progress in metal-organic chemical vapor deposition of $left(000bar{1} right)$ N-polar group-III nitrides. *Semiconductor Science and Technology*, **2014**, 29, 113001	1.8	129
233	N-polar GaN epitaxy and high electron mobility transistors. *Semiconductor Science and Technology*, **2013**, 28, 074009	1.8	124
232	Ultralow nonalloyed Ohmic contact resistance to self aligned N-polar GaN high electron mobility transistors by In(Ga)N regrowth. *Applied Physics Letters*, **2010**, 96, 143504	3.4	101
231	In Situ Oxide, GaN Interlayer-Based Vertical Trench MOSFET (OG-FET) on Bulk GaN substrates. *IEEE Electron Device Letters*, **2017**, 38, 353-355	4.4	99
230	Demonstration of Constant 8 W/mm Power Density at 10, 30, and 94 GHz in State-of-the-Art Millimeter-Wave N-Polar GaN MISHEMTs. *IEEE Transactions on Electron Devices*, **2018**, 65, 45-50	2.9	98
229	Polarity in GaN and ZnO: Theory, measurement, growth, and devices. *Applied Physics Reviews*, **2016**, 3, 041303	17.3	85
228	Radiative and nonradiative processes in strain-free AlxGa1�N films studied by time-resolved photoluminescence and positron annihilation techniques. *Journal of Applied Physics*, **2004**, 95, 2495-2504	2.5	82

227	Two-photon absorption study of GaN. *Applied Physics Letters*, **2000**, 76, 439-441	3.4	82
226	Charge control and mobility in AlGaN/GaN transistors: Experimental and theoretical studies. *Journal of Applied Physics*, **2000**, 87, 7981-7987	2.5	78
225	Design, fabrication, and performance analysis of GaN vertical electron transistors with a buried p/n junction. *Applied Physics Letters*, **2015**, 106, 183502	3.4	68
224	Metalorganic chemical vapor deposition of group III nitrides� discussion of critical issues. *Journal of Crystal Growth*, **2003**, 248, 479-486	1.6	65
223	Nonpolarm-Plane Blue-Light-Emitting Diode Lamps with Output Power of 23.5 mW under Pulsed Operation. *Japanese Journal of Applied Physics*, **2006**, 45, 739-741	1.4	60
222	Preparation of indium nitride micro- and nanostructures by ammonolysis of indium oxide. *Journal of Materials Chemistry*, **2004**, 14, 637		59
221	Normally OFF Trench CAVET With Active Mg-Doped GaN as Current Blocking Layer. *IEEE Transactions on Electron Devices*, **2017**, 64, 805-808	2.9	58
220	. *IEEE Electron Device Letters*, **2008**, 29, 974-976	4.4	58
219	High conductivity modulation doped AlGaN/GaN multiple channel heterostructures. *Journal of Applied Physics*, **2003**, 94, 5321	2.5	57
218	N-Polar GaN Cap MISHEMT With Record Power Density Exceeding 6.5 W/mm at 94 GHz. *IEEE Electron Device Letters*, **2017**, 38, 359-362	4.4	56
217	Atom probe analysis of AlN interlayers in AlGaN/AlN/GaN heterostructures. *Applied Physics Letters*, **2013**, 102, 111603	3.4	55
216	Effect of doping and polarization on carrier collection in InGaN quantum well solar cells. *Applied Physics Letters*, **2011**, 98, 243507	3.4	55
215	880 V/ $2.7~text{m}Omegacdottext{cm}^{text{2}}$ MIS Gate Trench CAVET on Bulk GaN Substrates. *IEEE Electron Device Letters*, **2018**, 39, 863-865	4.4	54
214	Low nonalloyed Ohmic contact resistance to nitride high electron mobility transistors using N-face growth. *Applied Physics Letters*, **2007**, 91, 232103	3.4	53
213	Spiral Growth of InGaN Nanoscale Islands on GaN. *Japanese Journal of Applied Physics*, **1998**, 37, L431-L434	1.4	51
212	Scanning second-harmonic/third-harmonic generation microscopy of gallium nitride. *Applied Physics Letters*, **2000**, 77, 2331-2333	3.4	51
211	High-transconductance self-aligned AlGaN/GaN modulation-doped field-effect transistors with regrown ohmic contacts. *Applied Physics Letters*, **1998**, 73, 3147-3149	3.4	50
210	N-Polar GaN HEMTs Exhibiting Record Breakdown Voltage Over 2000 V and Low Dynamic On-Resistance. *IEEE Electron Device Letters*, **2018**, 39, 1014-1017	4.4	50

209	OG-FET: An In-Situ ${O}$ xide, ${G}$ aN Interlayer-Based Vertical Trench MOSFET. *IEEE Electron Device Letters*, **2016**, 37, 1601-1604	4.4	49
208	Effect of quantum well cap layer thickness on the microstructure and performance of InGaN/GaN solar cells. *Applied Physics Letters*, **2012**, 100, 161101	3.4	47
207	Growth study and impurity characterization of AlxIn1�N grown by metal organic chemical vapor deposition. *Journal of Crystal Growth*, **2011**, 324, 163-167	1.6	45
206	Mass transport regrowth of GaN for ohmic contacts to AlGaN/GaN. *Applied Physics Letters*, **2001**, 78, 2876-2878	3.4	45
205	Growth and characterization of N-polar GaN films on SiC by metal organic chemical vapor deposition. *Journal of Applied Physics*, **2008**, 104, 024301	2.5	44
204	W-Band Power Performance of SiN-Passivated N-Polar GaN Deep Recess HEMTs. *IEEE Electron Device Letters*, **2020**, 41, 349-352	4.4	42
203	Effect of the Nucleation Conditions on the Polarity of AlN and GaN Films Grown on C-face 6H-SiC. *Japanese Journal of Applied Physics*, **2006**, 45, L322-L325	1.4	42
202	Visible resonant modes in GaN-based photonic crystal membrane cavities. *Applied Physics Letters*, **2006**, 88, 031111	3.4	42
201	Recessed Slant Gate AlGaN/GaN High Electron Mobility Transistors with 20.9 W/mm at 10 GHz. *Japanese Journal of Applied Physics*, **2007**, 46, L1087-L1089	1.4	42
200	Effect of the Trimethylgallium Flow during Nucleation Layer Growth on the Properties of GaN Grown on Sapphire. *Japanese Journal of Applied Physics*, **1996**, 35, L285-L288	1.4	41
199	Design of High-Aspect-Ratio T-Gates on N-Polar GaN/AlGaN MIS-HEMTs for High f_{max}. *IEEE Electron Device Letters*, **2012**, 33, 785-787	4.4	40
198	Impact of strain on free-exciton resonance energies in wurtzite AlN. *Journal of Applied Physics*, **2007** , 102, 123707	2.5	40
197	Demonstrating >1.4 kV OG-FET performance with a novel double field-plated geometry and the successful scaling of large-area devices **2017**,		39
196	Comparing electrical performance of GaN trench-gate MOSFETs witha-plane $(11bar{2}0)$ andm-plane $(1bar{1}00)$ sidewall channels. *Applied Physics Express*, **2016**, 9, 121001	2.4	38
195	Gallium Nitride Powders from Ammonolysis: Influence of Reaction Parameters on Structure and Properties. *Chemistry of Materials*, **2004**, 16, 5088-5095	9.6	37
194	Epitaxial Lateral Overgrowth of High Al Composition AlGaN Alloys on Deep Grooved SiC Substrates. *Japanese Journal of Applied Physics*, **2005**, 44, L405-L407	1.4	37
193	A comparative study of effects of SiNx deposition method on AlGaN/GaN heterostructure field-effect transistors. *Applied Physics Letters*, **2009**, 94, 053513	3.4	36
192	Dispersion Free 450-V p GaN-Gated CAVETs With Mg-ion Implanted Blocking Layer. *IEEE Electron Device Letters*, **2017**, 38, 933-936	4.4	35

191	Demonstration of ultra-small (0.2%) for mini-displays. *Applied Physics Express*, **2021**, 14, 011004	2.4	35
190	Relaxedc-plane InGaN layers for the growth of strain-reduced InGaN quantum wells. *Semiconductor Science and Technology*, **2015**, 30, 105015	1.8	34
189	Capacitance-voltage characterization of interfaces between positive valence band offset dielectrics and wide bandgap semiconductors. *Journal of Applied Physics*, **2013**, 114, 083718	2.5	34
188	Large-Area In-Situ Oxide, GaN Interlayer-Based Vertical Trench MOSFET (OG-FET). *IEEE Electron Device Letters*, **2018**, 39, 711-714	4.4	33
187	Optical Properties of InGaN/GaN Quantum Wells with Si Doped Barriers. *Japanese Journal of Applied Physics*, **1998**, 37, L1362-L1364	1.4	33
186	Plasma Treatment for Leakage Reduction in AlGaN/GaN and GaN Schottky Contacts. *IEEE Electron Device Letters*, **2008**, 29, 297-299	4.4	32
185	Growth and properties of InGaN nanoscale islands on GaN. *Journal of Crystal Growth*, **1998**, 189-190, 29-32	1.6	31
184	N-Face Metal–Insulator–Semiconductor High-Electron-Mobility Transistors With AlN Back-Barrier. *IEEE Electron Device Letters*, **2008**, 29, 1101-1104	4.4	31
183	Impact of $hbox{CF}_{4}$ Plasma Treatment on GaN. *IEEE Electron Device Letters*, **2007**, 28, 781-783	4.4	31
182	Microwave Power Performance N-Polar GaN MISHEMTs Grown by MOCVD on SiC Substrates Using an $hbox{Al}_{2}hbox{O}_{3}$ Etch-Stop Technology. *IEEE Electron Device Letters*, **2012**, 33, 44-46	4.4	30
181	Ion versus pH sensitivity of ungated AlGaN/GaN heterostructure-based devices. *Applied Physics Letters*, **2010**, 97, 012108	3.4	30
180	Indium segregation in N-polar InGaN quantum wells evidenced by energy dispersive X-ray spectroscopy and atom probe tomography. *Applied Physics Letters*, **2017**, 110, 143101	3.4	29
179	Impact of Moisture and Fluorocarbon Passivation on the Current Collapse of AlGaN/GaN HEMTs. *IEEE Electron Device Letters*, **2012**, 33, 1378-1380	4.4	29
178	Two-Stage High-Gain High-Power Distributed Amplifier Using Dual-Gate GaN HEMTs. *IEEE Transactions on Microwave Theory and Techniques*, **2011**, 59, 2059-2063	4.1	28
177	Demonstration of GaN Current Aperture Vertical Electron Transistors With Aperture Region Formed by Ion Implantation. *IEEE Transactions on Electron Devices*, **2018**, 65, 483-487	2.9	27
176	N-Polar GaN MIS-HEMTs on Sapphire With High Combination of Power Gain Cutoff Frequency and Three-Terminal Breakdown Voltage. *IEEE Electron Device Letters*, **2016**, 37, 77-80	4.4	27
175	Demonstration of a GaN/AlGaN Superlattice-Based p-Channel FinFET With High ON-Current. *IEEE Electron Device Letters*, **2020**, 41, 220-223	4.4	27
174	Growth and characterization of In-polar and N-polar InAlN by metal organic chemical vapor deposition. *Journal of Applied Physics*, **2010**, 107, 033509	2.5	26

173	N-Polar InAlN/AlN/GaN MIS-HEMTs. *IEEE Electron Device Letters*, **2010**, 31, 800-802	4.4	26
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171	Generation of coherent acoustic phonons in strained GaN thin films. *Applied Physics Letters*, **2001**, 79, 3361-3363	3.4	26
170	Model to explain the behavior of 2DEG mobility with respect to charge density in N-polar and Ga-polar AlGaN-GaN heterostructures. *Journal of Applied Physics*, **2016**, 120, 115302	2.5	26
169	. *IEEE Electron Device Letters*, **2017**, 38, 1575-1578	4.4	25
168	Growth of strain-relaxed InGaN on micrometer-sized patterned compliant GaN pseudo-substrates. *Applied Physics Letters*, **2020**, 116, 111101	3.4	23
167	Measurement of the hot electron mean free path and the momentum relaxation rate in GaN. *Applied Physics Letters*, **2014**, 105, 263506	3.4	23
166	Electrical properties of N-polar AlGaN/GaN high electron mobility transistors grown on SiC by metalorganic chemical vapor deposition. *Applied Physics Letters*, **2009**, 94, 153506	3.4	23
165	Luminescence Characteristics of N-Polar GaN and InGaN Films Grown by Metal Organic Chemical Vapor Deposition. *Japanese Journal of Applied Physics*, **2009**, 48, 071003	1.4	23
164	Growth of high purity N-polar (In,Ga)N films. *Journal of Crystal Growth*, **2017**, 464, 127-131	1.6	21
163	RF Performance of N-Polar AlGaN/GaN MIS-HEMTs Grown by MOCVD on Sapphire Substrate. *IEEE Electron Device Letters*, **2009**, 30, 584-586	4.4	21
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161	Milliwatt Power Deep Ultraviolet Light Emitting Diodes Grown on Silicon Carbide. *Japanese Journal of Applied Physics*, **2005**, 44, L502-L504	1.4	21
160	Suppression of Mg propagation into subsequent layers grown by MOCVD. *Journal of Applied Physics* , **2017**, 121, 025106	2.5	20
159	Fabrication of relaxed InGaN pseudo-substrates composed of micron-sized pattern arrays with high fill factors using porous GaN. *Semiconductor Science and Technology*, **2019**, 34, 115020	1.8	20
158	Influence of AlN interlayer on the anisotropic electron mobility and the device characteristics of N-polar AlGaN/GaN metal-insulator-semiconductor-high electron mobility transistors grown on vicinal substrates. *Journal of Applied Physics*, **2010**, 108, 074502	2.5	20
157	High-Performance N-Face GaN Microwave MIS-HEMTs With > 70% Power-Added Efficiency. *IEEE Electron Device Letters*, **2009**, 30, 802-804	4.4	20
156	Very high channel conductivity in ultra-thin channel N-polar GaN/(AlN, InAlN, AlGaN) high electron mobility hetero-junctions grown by metalorganic chemical vapor deposition. *Applied Physics Letters*, **2013**, 102, 232104	3.4	19

155	Metalorganic Chemical Vapor Deposition Conditions for Efficient Silicon Doping in High Al-Composition AlGaN Films. *Japanese Journal of Applied Physics*, **2005**, 44, 7227-7233	1.4	19
154	Color-tunable . *Applied Physics Letters*, **2020**, 117, 061105	3.4	19
153	Elimination of columnar microstructure in N-face InAlN, lattice-matched to GaN, grown by plasma-assisted molecular beam epitaxy in the N-rich regime. *Applied Physics Letters*, **2014**, 104, 072107	3.4	18
152	Engineering the (In, Al, Ga)N back-barrier to achieve high channel-conductivity for extremely scaled channel-thicknesses in N-polar GaN high-electron-mobility-transistors. *Applied Physics Letters*, **2014**, 104, 092107	3.4	18
151	Electrical and structural characterization of Mg-doped p-type Al0.69Ga0.31N films on SiC substrate. *Journal of Applied Physics*, **2007**, 101, 053717	2.5	18
150	N-Polar Deep Recess MISHEMTs With Record 2.9 W/mm at 94 GHz. *IEEE Electron Device Letters*, **2016**, 1-1	4.4	18
149	High Linearity and High Gain Performance of N-Polar GaN MIS-HEMT at 30 GHz. *IEEE Electron Device Letters*, **2020**, 41, 681-684	4.4	17
148	. *IEEE Transactions on Electron Devices*, **2011**, 58, 2589-2596	2.9	17
147	Enhancement-Mode m-plane AlGaN/GaN Heterojunction Field-Effect Transistors with +3 V of Threshold Voltage Using Al2O3 Deposited by Atomic Layer Deposition. *Applied Physics Express*, **2011**, 4, 096501	2.4	17
146	Growth of embedded photonic crystals for GaN-based optoelectronic devices. *Journal of Applied Physics*, **2009**, 106, 024309	2.5	17
145	Study of interface barrier of SiNx/GaN interface for nitrogen-polar GaN based high electron mobility transistors. *Journal of Applied Physics*, **2008**, 103, 124508	2.5	17
144	Metalorganic Chemical Vapor Deposition Regrowth of InGaN and GaN on N-polar Pillar and Stripe Nanostructures. *Japanese Journal of Applied Physics*, **2007**, 46, L230-L233	1.4	17
143	Mapping piezoelectric-field distribution in gallium nitride with scanning second-harmonic generation microscopy. *Scanning*, **2001**, 23, 182-92	1.6	17
142	Metal-organic chemical vapor deposition of high quality, high indium composition N-polar InGaN layers for tunnel devices. *Journal of Applied Physics*, **2017**, 121, 185707	2.5	16
141	Improved Dynamic RON of GaN Vertical Trench MOSFETs (OG-FETs) Using TMAH Wet Etch. *IEEE Electron Device Letters*, **2018**, 39, 1030-1033	4.4	16
140	Observation of positive thermal power coefficient in InGaN/GaN quantum well solar cells. *Applied Physics Letters*, **2011**, 99, 071104	3.4	16
139	Investigation of nitrogen polar p-type doped GaN/AlxGa(1-x)N superlattices for applications in wide-bandgap p-type field effect transistors. *Applied Physics Letters*, **2019**, 115, 172105	3.4	15
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134	Stimulated emission and ultrafast carrier relaxation in InGaN multiple quantum wells. *Applied Physics Letters*, **2003**, 82, 1416-1418	3.4	15
133	Local wing tilt analysis of laterally overgrown GaN by x-ray rocking curve imaging. *Journal Physics D: Applied Physics*, **2005**, 38, A50-A54	3	15
132	Compliant Micron-Sized Patterned InGaN Pseudo-Substrates Utilizing Porous GaN. *Materials*, **2020**, 13,	3.5	15
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130	Lateral confinement of electrons in vicinal N-polar AlGaN/GaN heterostructure. *Applied Physics Letters*, **2010**, 97, 162106	3.4	14
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128	Role of GaN cap layer for reference electrode free AlGaN/GaN-based pH sensors. *Sensors and Actuators B: Chemical*, **2019**, 287, 250-257	8.5	13
127	An improved methodology for extracting interface state density at Si3N4/GaN. *Applied Physics Letters*, **2020**, 116, 022104	3.4	13
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125	Metal-organic chemical vapor deposition of N-polar InN quantum dots and thin films on vicinal GaN. *Journal of Applied Physics*, **2018**, 123, 055702	2.5	13
124	GaN-based embedded 2D photonic crystal LEDs: Numerical optimization and device characterization. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2009**, 6, S675-S679		13
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121	Ultrashort hole capture time in Mg-doped GaN thin films. *Applied Physics Letters*, **2002**, 81, 3975-3977	3.4	13
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118	Studies of carrier dynamics in unintentionally doped gallium nitride bandtail states. *Applied Physics Letters*, **2001**, 78, 2724-2726	3.4	13
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116	6.2 W/Mm and Record 33.8% PAE at 94 GHz From N-Polar GaN Deep Recess MIS-HEMTs With ALD Ru Gates. *IEEE Microwave and Wireless Components Letters*, **2021**, 31, 748-751	2.6	13
115	Controlled low Si doping and high breakdown voltages in GaN on sapphire grown by MOCVD. *Semiconductor Science and Technology*, **2016**, 31, 125018	1.8	13
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113	Infrared luminescence from N-polar InN quantum dots and thin films grown by metal organic chemical vapor deposition. *Applied Physics Letters*, **2019**, 114, 241103	3.4	12
112	First demonstration of improvement in hole conductivity inc-plane III-Nitrides through application of uniaxial strain. *Japanese Journal of Applied Physics*, **2019**, 58, 030908	1.4	12
111	A Demonstration of Nitrogen Polar Gallium Nitride Current Aperture Vertical Electron Transistor. *IEEE Electron Device Letters*, **2019**, 40, 885-888	4.4	12
110	Interfacial N Vacancies in GaN/(Al,Ga)N/GaN Heterostructures. *Physical Review Applied*, **2020**, 13,	4.3	12
109	Observation of Hot Electron and Impact Ionization in N-Polar GaN MIS-HEMTs. *IEEE Electron Device Letters*, **2018**, 39, 1007-1010	4.4	12
108	Low Ohmic Contact Resistancem-Plane AlGaN/GaN Heterojunction Field-Effect Transistors with Enhancement-Mode Operations. *Applied Physics Express*, **2010**, 3, 101002	2.4	12
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106	Crystal quality and growth evolution of aluminum nitride on silicon carbide. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 1708-1711	1.6	12
105	N-Polar GaN-on-Sapphire Deep Recess HEMTs With High W-Band Power Density. *IEEE Electron Device Letters*, **2020**, 41, 1633-1636	4.4	12
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97	Optimization of a chlorine-based deep vertical etch of GaN demonstrating low damage and low roughness. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2016**, 34, 031303	2.9	11
96	InGaN lattice constant engineering via growth on (In,Ga)N/GaN nanostripe arrays. *Semiconductor Science and Technology*, **2015**, 30, 105020	1.8	10
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94	Design of polarization-dipole-induced isotype heterojunction diodes for use in III-N hot electron transistors. *Applied Physics Express*, **2014**, 7, 014102	2.4	10
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