

Zlatko Sitar

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

251
papers

6,213
citations

43
h-index

68
g-index

267
ext. papers

7,117
ext. citations

2.9
avg, IF

5.49
L-index

#	Paper	IF	Citations
251	The role of Ga supersaturation on facet formation in the epitaxial lateral overgrowth of GaN. <i>Applied Physics Letters</i> , 2022 , 120, 032104	3.4	0
250	GaN lateral polar junction arrays with 3D control of doping by supersaturation modulated growth: A path toward III-nitride superjunctions. <i>Journal of Applied Physics</i> , 2022 , 131, 015703	2.5	2
249	Doping and compensation in heavily Mg doped Al-rich AlGa _N films. <i>Applied Physics Letters</i> , 2022 , 120, 082102	3.4	2
248	Record >10 MV/cm mesa breakdown fields in Al _{0.85} Ga _{0.15} N/Al _{0.6} Ga _{0.4} N high electron mobility transistors on native AlN substrates. <i>Applied Physics Letters</i> , 2022 , 120, 172106	3.4	1
247	Schottky contacts to N-polar GaN with SiN interlayer for elevated temperature operation. <i>Applied Physics Letters</i> , 2022 , 120, 172109	3.4	
246	Pseudomorphic growth of thick Al _{0.6} Ga _{0.4} N epilayers on AlN substrates. <i>Applied Physics Letters</i> , 2022 , 120, 202105	3.4	1
245	Status of the growth and fabrication of AlGa _N -based UV laser diodes for near and mid-UV wavelength. <i>Journal of Materials Research</i> , 2021 , 36, 4638-4664	2.5	10
244	Study on avalanche breakdown and Poole-Frenkel emission in Al-rich AlGa _N grown on single crystal AlN. <i>Applied Physics Letters</i> , 2021 , 119, 182104	3.4	5
243	A pathway to highly conducting Ge-doped AlGa _N . <i>Journal of Applied Physics</i> , 2021 , 130, 205703	2.5	2
242	Role of oxygen diffusion in the dislocation reduction of epitaxial AlN on sapphire during high-temperature annealing. <i>Journal of Applied Physics</i> , 2021 , 130, 203101	2.5	1
241	On the characteristics of N-polar GaN Schottky barrier contacts with LPCVD SiN interlayers. <i>Applied Physics Letters</i> , 2021 , 118, 122103	3.4	3
240	High n-type conductivity and carrier concentration in Si-implanted homoepitaxial AlN. <i>Applied Physics Letters</i> , 2021 , 118, 112104	3.4	11
239	Native oxide reconstructions on AlN and GaN (0001) surfaces. <i>Journal of Applied Physics</i> , 2021 , 129, 195304	3.4	0
238	Temperature dependence of electronic bands in Al/GaN by utilization of invariant deep defect transition energies. <i>Applied Physics Letters</i> , 2021 , 119, 022101	3.4	
237	Self-compensation in heavily Ge doped AlGa _N : A comparison to Si doping. <i>Applied Physics Letters</i> , 2021 , 118, 042102	3.4	5
236	High Mg activation in implanted GaN by high temperature and ultrahigh pressure annealing. <i>Applied Physics Letters</i> , 2021 , 118, 022101	3.4	16
235	Weak localization and dimensional crossover in compositionally graded Al _x Ga _{1-x} N. <i>Applied Physics Letters</i> , 2021 , 118, 082101	3.4	4

234	Structural and optical properties of self-assembled AlN nanowires grown on SiO/Si substrates by molecular beam epitaxy. <i>Nanotechnology</i> , 2021 , 32, 195601	3.4	0
233	On the Ge shallow-to-deep level transition in Al-rich AlGaN. <i>Journal of Applied Physics</i> , 2021 , 130, 055702.5	2.5	3
232	The nature of the DX state in Ge-doped AlGaN. <i>Applied Physics Letters</i> , 2020 , 116, 222102	3.4	12
231	Recovery kinetics in high temperature annealed AlN heteroepitaxial films. <i>Journal of Applied Physics</i> , 2020 , 127, 115301	2.5	20
230	The role of chemical potential in compensation control in Si:AlGaN. <i>Journal of Applied Physics</i> , 2020 , 127, 105702	2.5	21
229	High gain, large area, and solar blind avalanche photodiodes based on Al-rich AlGaN grown on AlN substrates. <i>Applied Physics Letters</i> , 2020 , 116, 081101	3.4	18
228	Role of polarity in SiN on Al/GaN and the pathway to stable contacts. <i>Semiconductor Science and Technology</i> , 2020 , 35, 055007	1.8	6
227	Strain Recovery and Defect Characterization in Mg-Implanted Homoepitaxial GaN on High-Quality GaN Substrates. <i>Physica Status Solidi (B): Basic Research</i> , 2020 , 257, 1900705	1.3	10
226	Control of passivation and compensation in Mg-doped GaN by defect quasi Fermi level control. <i>Journal of Applied Physics</i> , 2020 , 127, 045702	2.5	10
225	Pinning of energy transitions of defects, complexes, and surface states in AlGaN alloys. <i>Applied Physics Letters</i> , 2020 , 116, 032102	3.4	5
224	Shallow Si donor in ion-implanted homoepitaxial AlN. <i>Applied Physics Letters</i> , 2020 , 116, 172103	3.4	13
223	Impact of the effective refractive index in AlGaN-based mid-UV laser structures on waveguiding. <i>Japanese Journal of Applied Physics</i> , 2020 , 59, 091001	1.4	4
222	(Invited) A Path Toward Vertical GaN Superjunction Devices. <i>ECS Transactions</i> , 2020 , 98, 69-79	1	4
221	Study of Dislocations in Homoepitaxially and Heteroepitaxially Grown AlN Layers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020 , 217, 2000465	1.6	1
220	The 2020 UV emitter roadmap. <i>Journal Physics D: Applied Physics</i> , 2020 , 53, 503001	3	123
219	Chemical treatment effects on Schottky contacts to metalorganic chemical vapor deposited n-type N-polar GaN. <i>Journal of Applied Physics</i> , 2020 , 128, 064501	2.5	7
218	Cathodoluminescence of silicon doped aluminum nitride with scanning transmission electron microscopy. <i>APL Materials</i> , 2020 , 8, 091110	5.7	1
217	Impact of impurity-based phonon resonant scattering on thermal conductivity of single crystalline GaN. <i>Applied Physics Letters</i> , 2020 , 117, 082101	3.4	5

216	Observation of carrier concentration dependent spintronic terahertz emission from n-GaN/NiFe heterostructures. <i>Applied Physics Letters</i> , 2020 , 117, 093502	3.4	8
215	Complexes and compensation in degenerately donor doped GaN. <i>Applied Physics Letters</i> , 2020 , 117, 102109	3.4	10
214	The role of transient surface morphology on composition control in AlGa _N layers and wells. <i>Applied Physics Letters</i> , 2019 , 114, 031602	3.4	10
213	Multiple Epsilon-Near-Zero Resonances in Multilayered Cadmium Oxide: Designing Metamaterial-Like Optical Properties in Monolithic Materials. <i>ACS Photonics</i> , 2019 , 6, 1139-1145	6.3	19
212	Quasi-phase-matched second harmonic generation of UV light using AlN waveguides. <i>Applied Physics Letters</i> , 2019 , 114, 103504	3.4	9
211	The polarization field in Al-rich AlGa _N multiple quantum wells. <i>Japanese Journal of Applied Physics</i> , 2019 , 58, SCCC10	1.4	14
210	Oxygen and silicon point defects in Al _{0.65} Ga _{0.35} N. <i>Physical Review Materials</i> , 2019 , 3,	3.2	13
209	Al Rich AlGa _N Based APDs on Single Crystal AlN with Solar Blindness and Room Temperature Operation 2019 ,		3
208	In-plane optical polarization and dynamic properties of the near-band-edge emission of an m-plane freestanding AlN substrate and a homoepitaxial film. <i>Applied Physics Letters</i> , 2019 , 115, 151903	3.4	3
207	Design of AlGa _N -based quantum structures for low threshold UVC lasers. <i>Journal of Applied Physics</i> , 2019 , 126, 223101	2.5	12
206	Structural characteristics of m-plane AlN substrates and homoepitaxial films. <i>Journal of Crystal Growth</i> , 2019 , 507, 389-394	1.6	4
205	Probing collective oscillation of d-orbital electrons at the nanoscale. <i>Applied Physics Letters</i> , 2018 , 112, 061102	3.4	
204	On compensation in Si-doped AlN. <i>Applied Physics Letters</i> , 2018 , 112, 152101	3.4	71
203	Improvement in detection limit for time-of-flight SIMS analysis of dopants in GaN structures. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2018 , 36, 03F102	1.3	5
202	Doping and compensation in Al-rich AlGa _N grown on single crystal AlN and sapphire by MOCVD. <i>Applied Physics Letters</i> , 2018 , 112, 062102	3.4	70
201	Structure of Ultrathin Native Oxides on III-Nitride Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 10607-10611	9.5	18
200	On Ni/Au Alloyed Contacts to Mg-Doped GaN. <i>Journal of Electronic Materials</i> , 2018 , 47, 305-311	1.9	9
199	6 kW/cm ² UVC laser threshold in optically pumped lasers achieved by controlling point defect formation. <i>Applied Physics Express</i> , 2018 , 11, 082101	2.4	35

198	Thermal conductivity of single-crystalline AlN. <i>Applied Physics Express</i> , 2018 , 11, 071001	2.4	27
197	Ultrawide-Bandgap Semiconductors: Research Opportunities and Challenges. <i>Advanced Electronic Materials</i> , 2018 , 4, 1600501	6.4	520
196	Plasma enhanced chemical vapor deposition of SiO ₂ and SiN _x on AlGa _N : Band offsets and interface studies as a function of Al composition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 061101	2.9	4
195	N- and P- type Doping in Al-rich AlGa _N and AlN. <i>ECS Transactions</i> , 2018 , 86, 25-30	1	8
194	Second-Harmonic Generation of Blue Light in GaN Waveguides. <i>Applied Sciences (Switzerland)</i> , 2018 , 8, 1218	2.6	4
193	A thermodynamic supersaturation model for the growth of aluminum gallium nitride by metalorganic chemical vapor deposition. <i>Journal of Applied Physics</i> , 2018 , 124, 115304	2.5	14
192	Thermal conductivity of GaN single crystals: Influence of impurities incorporated in different growth processes. <i>Journal of Applied Physics</i> , 2018 , 124, 105106	2.5	20
191	Point-Defect Nature of the Ultraviolet Absorption Band in AlN. <i>Physical Review Applied</i> , 2018 , 9,	4.3	28
190	The influence of point defects on the thermal conductivity of AlN crystals. <i>Journal of Applied Physics</i> , 2018 , 123, 185107	2.5	12
189	Defect-free Ni/GaN Schottky barrier behavior with high temperature stability. <i>Applied Physics Letters</i> , 2017 , 110, 011603	3.4	32
188	Model for the deep defect-related emission bands between 1.4 and 2.4 eV in AlN. <i>Physica Status Solidi (B): Basic Research</i> , 2017 , 254, 1600714	1.3	13
187	Optical nonlinear and electro-optical coefficients in bulk aluminium nitride single crystals. <i>Physica Status Solidi (B): Basic Research</i> , 2017 , 254, 1700077	1.3	15
186	Optical signatures of silicon and oxygen related DX centers in AlN. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017 , 214, 1600749	1.6	8
185	Nonlinear analysis of vanadium- and titanium-based contacts to Al-rich n-AlGa _N . <i>Japanese Journal of Applied Physics</i> , 2017 , 56, 100302	1.4	15
184	High free carrier concentration in p-GaN grown on AlN substrates. <i>Applied Physics Letters</i> , 2017 , 111, 032109	3.4	13
183	Defect quasi Fermi level control-based CN reduction in GaN: Evidence for the role of minority carriers. <i>Applied Physics Letters</i> , 2017 , 111, 152101	3.4	12
182	Slow decay of a defect-related emission band at 2.05 eV in AlN: Signatures of oxygen-related DX states. <i>Physica Status Solidi (B): Basic Research</i> , 2017 , 254, 1600338	1.3	8
181	Point defect reduction in MOCVD (Al)Ga _N by chemical potential control and a comprehensive model of C incorporation in GaN. <i>Journal of Applied Physics</i> , 2017 , 122, 245702	2.5	34

180	Structure and Chemistry of Oxide Surface Reconstructions in III-Nitrides Observed using STEM EELS. <i>Microscopy and Microanalysis</i> , 2017 , 23, 1444-1445	0.5	
179	Polarity Control in Group-III Nitrides beyond Pragmatism. <i>Physical Review Applied</i> , 2016 , 5,	4.3	68
178	Surface kinetics in AlN growth: A universal model for the control of surface morphology in III-nitrides. <i>Journal of Crystal Growth</i> , 2016 , 438, 81-89	1.6	97
177	Point defect reduction in wide bandgap semiconductors by defect quasi Fermi level control. <i>Journal of Applied Physics</i> , 2016 , 120, 185704	2.5	37
176	UV second harmonic generation in AlN waveguides with modal phase matching. <i>Optical Materials Express</i> , 2016 , 6, 2014	2.6	11
175	The role of surface kinetics on composition and quality of AlGaIn. <i>Journal of Crystal Growth</i> , 2016 , 451, 65-71	1.6	80
174	High reflectivity III-nitride UV-C distributed Bragg reflectors for vertical cavity emitting lasers. <i>Journal of Applied Physics</i> , 2016 , 120, 135703	2.5	11
173	Correlation between mobility collapse and carbon impurities in Si-doped GaN grown by low pressure metalorganic chemical vapor deposition. <i>Journal of Applied Physics</i> , 2016 , 120, 105701	2.5	50
172	The effect of illumination power density on carbon defect configuration in silicon doped GaN. <i>Journal of Applied Physics</i> , 2016 , 120, 235705	2.5	12
171	High temperature and low pressure chemical vapor deposition of silicon nitride on AlGaIn: Band offsets and passivation studies. <i>Journal of Applied Physics</i> , 2016 , 119, 145702	2.5	17
170	Very slow decay of a defect related emission band at 2.4 eV in AlN: Signatures of the Si related shallow DX state. <i>Journal of Applied Physics</i> , 2016 , 119, 155701	2.5	12
169	Fabrication and structural properties of AlN submicron periodic lateral polar structures and waveguides for UV-C applications. <i>Applied Physics Letters</i> , 2016 , 108, 261106	3.4	18
168	Selective area epitaxy of magnesium oxide thin films on gallium nitride surfaces. <i>Journal of Materials Research</i> , 2016 , 31, 36-45	2.5	1
167	Atomically Thin MoS ₂ Narrowband and Broadband Light Superabsorbers. <i>ACS Nano</i> , 2016 , 10, 7493-9	16.7	58
166	AlGaIn devices and growth of device structures. <i>Journal of Materials Science</i> , 2015 , 50, 3267-3307	4.3	37
165	Optical characterization of Al- and N-polar AlN waveguides for integrated optics. <i>Applied Physics Express</i> , 2015 , 8, 042603	2.4	10
164	High internal quantum efficiency in AlGaIn multiple quantum wells grown on bulk AlN substrates. <i>Applied Physics Letters</i> , 2015 , 106, 142107	3.4	106
163	Status and challenges in deep UV semiconductor lasers 2015 ,		2

162	A conduction model for contacts to Si-doped AlGa _N grown on sapphire and single-crystalline AlN. <i>Journal of Applied Physics</i> , 2015 , 117, 245702	2.5	6
161	Charge neutrality levels, barrier heights, and band offsets at polar AlGa _N . <i>Applied Physics Letters</i> , 2015 , 107, 091603	3.4	44
160	Growth and characterization of Al _x Ga _{1-x} N lateral polarity structures. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015 , 212, 1039-1042	1.6	12
159	Fabrication of vertical Schottky barrier diodes on n-type freestanding AlN substrates grown by hydride vapor phase epitaxy. <i>Applied Physics Express</i> , 2015 , 8, 061003	2.4	38
158	Stimulated emission and optical gain in AlGa _N heterostructures grown on bulk AlN substrates. <i>Journal of Applied Physics</i> , 2014 , 115, 103108	2.5	47
157	Sapphire decomposition and inversion domains in N-polar aluminum nitride. <i>Applied Physics Letters</i> , 2014 , 104, 032104	3.4	22
156	The effect of polarity and surface states on the Fermi level at III-nitride surfaces. <i>Journal of Applied Physics</i> , 2014 , 116, 123701	2.5	64
155	Properties of AlN based lateral polarity structures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014 , 11, 261-264		9
154	Vacancy defects in UV-transparent HVPE-AlN. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014 , 11, 405-407		3
153	Surface preparation of non-polar single-crystalline AlN substrates. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014 , 11, 454-457		9
152	Smooth cubic commensurate oxides on gallium nitride. <i>Journal of Applied Physics</i> , 2014 , 115, 064101	2.5	8
151	Dependence on pressure of the refractive indices of wurtzite ZnO, GaN, and AlN. <i>Physical Review B</i> , 2014 , 90,	3.3	13
150	Direct Observation of the Polarity Control Mechanism in Aluminum Nitride Grown on Sapphire by Aberration Corrected Scanning Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2014 , 20, 162-163	0.5	1
149	Fermi level control of compensating point defects during metalorganic chemical vapor deposition growth of Si-doped AlGa _N . <i>Applied Physics Letters</i> , 2014 , 105, 222101	3.4	40
148	Schottky contact formation on polar and non-polar AlN. <i>Journal of Applied Physics</i> , 2014 , 116, 194503	2.5	28
147	The role of the carbon-silicon complex in eliminating deep ultraviolet absorption in AlN. <i>Applied Physics Letters</i> , 2014 , 104, 202106	3.4	50
146	Exciton transitions and oxygen as a donor in m-plane AlN homoepitaxial films. <i>Journal of Applied Physics</i> , 2014 , 115, 133503	2.5	17
145	Polarity characterization by anomalous x-ray dispersion of ZnO films and GaN lateral polar structures. <i>Journal of Applied Physics</i> , 2014 , 115, 044912	2.5	6

144	Homoepitaxial AlN thin films deposited on m-plane (11 $\bar{2}$ 00) AlN substrates by metalorganic chemical vapor deposition. <i>Journal of Applied Physics</i> , 2014 , 116, 133517	2.5	24
143	Point defect management in GaN by Fermi-level control during growth 2014 ,		10
142	Characterization of Threading Dislocations in PVT-Grown AlN Substrates via x-Ray Topography and Ray Tracing Simulation. <i>Journal of Electronic Materials</i> , 2014 , 43, 838-842	1.9	24
141	Fermi Level Control of Point Defects During Growth of Mg-Doped GaN. <i>Journal of Electronic Materials</i> , 2013 , 42, 815-819	1.9	19
140	Excitonic emission dynamics in homoepitaxial AlN films studied using polarized and spatio-time-resolved cathodoluminescence measurements. <i>Applied Physics Letters</i> , 2013 , 103, 142103	3.4	21
139	Ge doped GaN with controllable high carrier concentration for plasmonic applications. <i>Applied Physics Letters</i> , 2013 , 103, 242107	3.4	38
138	Direct determination of the silicon donor ionization energy in homoepitaxial AlN from photoluminescence two-electron transitions. <i>Applied Physics Letters</i> , 2013 , 103, 122105	3.4	33
137	Strain relaxation by pitting in AlN thin films deposited by metalorganic chemical vapor deposition. <i>Applied Physics Letters</i> , 2013 , 102, 061602	3.4	36
136	Comparative study of etching high crystalline quality AlN and GaN. <i>Journal of Crystal Growth</i> , 2013 , 366, 20-25	1.6	51
135	Compensation effects in GaN:Mg probed by Raman spectroscopy and photoluminescence measurements. <i>Journal of Applied Physics</i> , 2013 , 113, 103504	2.5	40
134	X-ray characterization techniques for the assessment of surface damage in crystalline wafers: A model study in AlN. <i>Journal of Applied Physics</i> , 2013 , 113, 123508	2.5	10
133	Lasing and longitudinal cavity modes in photo-pumped deep ultraviolet AlGaIn heterostructures. <i>Applied Physics Letters</i> , 2013 , 102, 171102	3.4	92
132	Refractive index of III-metal-polar and N-polar AlGaIn waveguides grown by metal organic chemical vapor deposition. <i>Applied Physics Letters</i> , 2013 , 102, 221106	3.4	24
131	Performance and Reliability of Deep-Ultraviolet Light-Emitting Diodes Fabricated on AlN Substrates Prepared by Hydride Vapor Phase Epitaxy. <i>Applied Physics Express</i> , 2013 , 6, 092103	2.4	95
130	Fabrication and characterization of lateral polar GaN structures for second harmonic generation 2013 ,		13
129	Vacancy compensation and related donor-acceptor pair recombination in bulk AlN. <i>Applied Physics Letters</i> , 2013 , 103, 161901	3.4	64
128	Polarity determination of polar and semipolar (112 $\bar{2}$) InN and GaN layers by valence band photoemission spectroscopy. <i>Journal of Applied Physics</i> , 2013 , 114, 173503	2.5	27
127	Polarity control and growth of lateral polarity structures in AlN. <i>Applied Physics Letters</i> , 2013 , 102, 181913	3.4	52

126	Epitaxial Pb _x Zr _{1-x} TiO ₃ on GaN. <i>Journal of Applied Physics</i> , 2013 , 113, 074107	2.5	7
125	Optical identification of silicon as a shallow donor in MOVPE grown homoepitaxial AlN. <i>Physica Status Solidi (B): Basic Research</i> , 2012 , 249, 511-515	1.3	28
124	Optically pumped UV lasers grown on bulk AlN substrates. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012 , 9, 822-825		62
123	Deep-Ultraviolet Light-Emitting Diodes Fabricated on AlN Substrates Prepared by Hydride Vapor Phase Epitaxy. <i>Applied Physics Express</i> , 2012 , 5, 122101	2.4	99
122	Surfactant assisted growth of MgO films on GaN. <i>Applied Physics Letters</i> , 2012 , 101, 092904	3.4	12
121	Optical signature of Mg-doped GaN: Transfer processes. <i>Physical Review B</i> , 2012 , 86,	3.3	43
120	Lateral epitaxial overgrowth of nitrogen polar GaN on smooth nitrogen polar GaN templates by metalorganic chemical vapor deposition. <i>Journal of Applied Physics</i> , 2012 , 112, 113513	2.5	3
119	On the origin of the 265 nm absorption band in AlN bulk crystals. <i>Applied Physics Letters</i> , 2012 , 100, 1919314	3.4	108
118	Sharp bound and free exciton lines from homoepitaxial AlN. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011 , 208, 1520-1522	1.6	20
117	Characterization of dislocation arrays in AlN single crystals grown by PVT. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011 , 208, 1545-1547	1.6	33
116	Progress on n-type doping of AlGa _n alloys on AlN single crystal substrates for UV optoelectronic applications. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 2031-2033		131
115	Ni/Au Schottky diodes on Al _x Ga _{1-x} N (0.7). <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 2407-2409		35
114	Impact of gallium supersaturation on the growth of N-polar GaN. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 2078-2080		17
113	Growth temperature and growth rate dependency on reactor pressure for InN epilayers grown by HPCVD. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 2059-2062		4
112	Temperature dependent photoluminescence of lateral polarity junctions of metal organic chemical vapor deposition grown GaN. <i>Journal of Applied Physics</i> , 2011 , 110, 093503	2.5	42
111	Strain in Si doped GaN and the Fermi level effect. <i>Applied Physics Letters</i> , 2011 , 98, 202101	3.4	44
110	Spectroscopic measurements of the surface stoichiometry of chemical vapor deposited GaN. <i>Applied Physics Letters</i> , 2011 , 98, 082110	3.4	9
109	Growth and Characterization of AlN and AlGa _n Epitaxial Films on AlN Single Crystal Substrates. <i>Journal of the Electrochemical Society</i> , 2011 , 158, H530	3.9	98

108	Critical examination of growth rate for magnesium oxide (MgO) thin films deposited by molecular beam epitaxy with a molecular oxygen flux. <i>Journal of Materials Research</i> , 2010 , 25, 670-679	2.5	9
107	X-ray characterization of composition and relaxation of Al _x Ga _{1-x} N(0001) layers grown on GaN/sapphire templates by low pressure organometallic vapor phase epitaxy. <i>Journal of Applied Physics</i> , 2010 , 108, 043526	2.5	29
106	The effect of N-polar GaN domains as Ohmic contacts. <i>Applied Physics Letters</i> , 2010 , 97, 123502	3.4	8
105	Growth and Characterization of AlN and AlGa _N Epitaxial Films on AlN Single Crystal Substrates. <i>ECS Transactions</i> , 2010 , 33, 43-54	1	6
104	Surface preparation and homoepitaxial deposition of AlN on (0001)-oriented AlN substrates by metalorganic chemical vapor deposition. <i>Journal of Applied Physics</i> , 2010 , 108, 043510	2.5	99
103	Free-Standing Lithium Niobate Microring Resonators for Hybrid Integrated Optics. <i>IEEE Photonics Technology Letters</i> , 2010 , 22, 251-253	2.2	12
102	Implementation of the GaN lateral polarity junction in a MESFET utilizing polar doping selectivity. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010 , 207, 45-48	1.6	15
101	Optical properties of InN grown on templates with controlled surface polarities. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010 , 207, 2351-2354	1.6	5
100	AlN Bulk Crystal Growth by Physical Vapor Transport 2010 , 821-843		16
99	Advances in Bulk Crystal Growth of AlN and GaN. <i>MRS Bulletin</i> , 2009 , 34, 259-265	3.2	49
98	Fabrication of a GaN lateral polarity junction by metalorganic chemical vapor deposition. <i>Journal of Crystal Growth</i> , 2009 , 311, 3044-3048	1.6	28
97	Seeded growth of AlN bulk crystals in m- and c-orientation. <i>Journal of Crystal Growth</i> , 2009 , 312, 58-63	1.6	108
96	TF004 - interfacing complex oxides to gallium nitride 2008 ,		1
95	Influence of gallium supersaturation on the properties of GaN grown by metalorganic chemical vapor deposition. <i>Journal of Applied Physics</i> , 2008 , 104, 013521	2.5	85
94	Modulated precursor flow epitaxial growth of AlN layers on native AlN substrates by metal-organic chemical vapor deposition. <i>Applied Physics Letters</i> , 2008 , 93, 022103	3.4	40
93	Different optical absorption edges in AlN bulk crystals grown in m- and c-orientations. <i>Applied Physics Letters</i> , 2008 , 93, 131922	3.4	32
92	The influence of substrate polarity on the structural quality of InN layers grown by high-pressure chemical vapor deposition. <i>Applied Physics Letters</i> , 2008 , 92, 041911	3.4	12
91	Surface water reactivity of polycrystalline MgO and CaO films investigated using x-ray photoelectron spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2008 , 26, 1507-1510	2.9	16

90	Spectroscopic analysis of the epitaxial CaO (111)/GaN (0002) interface. <i>Applied Physics Letters</i> , 2008 , 92, 082907	3.4	9
89	Fabrication of a GaN p/n lateral polarity junction by polar doping selectivity. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008 , 5, 1977-1979		7
88	Three-Dimensional Geometry of Nanometer-Scale AlN Pits: A New Template for Quantum Dots?. <i>Advanced Materials</i> , 2008 , 20, 134-137	24	4
87	Direct Observation of Inversion Domain Boundaries of GaN on c-Sapphire at Sub-Ångstrom Resolution. <i>Advanced Materials</i> , 2008 , 20, 2162-2165	24	26
86	Growth of highly resistive Ga-polar GaN by LP-MOVPE. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007 , 4, 2260-2263		7
85	Impact of polarity control and related defects on the electrical properties of GaN grown by MOVPE. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007 , 4, 2597-2600		2
84	X-Ray Photoelectron Spectroscopy Characterization of Aluminum Nitride Surface Oxides: Thermal and Hydrothermal Evolution. <i>Journal of Electronic Materials</i> , 2007 , 36, 414-419	1.9	56
83	Epitaxial calcium oxide films deposited on gallium nitride surfaces. <i>Journal of Vacuum Science & Technology B</i> , 2007 , 25, 1029		12
82	Simultaneous growth of a GaN p/n lateral polarity junction by polar selective doping. <i>Applied Physics Letters</i> , 2007 , 91, 212103	3.4	33
81	Band offsets and growth mode of molecular beam epitaxy grown MgO (111) on GaN (0002) by x-ray photoelectron spectroscopy. <i>Journal of Applied Physics</i> , 2007 , 102, 074104	2.5	27
80	Sublimation growth of aluminum nitride on silicon carbide substrate with aluminum nitride/silicon carbide alloy transition layer. <i>Journal of Materials Research</i> , 2007 , 22, 675-680	2.5	1
79	The mechanism for polarity inversion of GaN via a thin AlN layer: Direct experimental evidence. <i>Applied Physics Letters</i> , 2007 , 91, 203115	3.4	54
78	Seeded growth of AlN crystals on nonpolar seeds via physical vapor transport. <i>Journal of Electronic Materials</i> , 2006 , 35, 1513-1517	1.9	9
77	Ammonothermal synthesis of aluminum nitride crystals on group III-nitride templates. <i>Journal of Electronic Materials</i> , 2006 , 35, 1104-1111	1.9	12
76	Wet Etching of Bulk AlN Crystals. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 955, 1		1
75	Bulk AlN Crystal Growth on SiC Seeds and Defects Study. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 955, 1		
74	Highly Oriented Diamond Films Grown at High Growth Rate. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 956, 1		1
73	MgO epitaxy on GaN (0002) surfaces by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2006 , 88, 212906	3.4	56

72	Current-voltage characteristics of n \bar{b} lateral polarity junctions in GaN. <i>Applied Physics Letters</i> , 2006 , 89, 052117	3.4	30
71	Seeded growth of AlN on N- and Al-polar AlN seeds by physical vapor transport. <i>Journal of Crystal Growth</i> , 2006 , 286, 205-208	1.6	71
70	Growth of Ga- and N- polar gallium nitride layers by metalorganic vapor phase epitaxy on sapphire wafers. <i>Journal of Crystal Growth</i> , 2006 , 287, 586-590	1.6	64
69	Seeded growth of AlN single crystals by physical vapor transport. <i>Journal of Crystal Growth</i> , 2006 , 287, 372-375	1.6	59
68	Comparative study of textured diamond films by thermal conductivity measurements. <i>Applied Physics A: Materials Science and Processing</i> , 2006 , 85, 331-335	2.6	9
67	Fabrication and thermal evaluation of silicon on diamond wafers. <i>Journal of Electronic Materials</i> , 2005 , 34, 1089-1094	1.9	2
66	Transmission electron microscopy studies of the bonded SiC-SiC interface. <i>Journal of Materials Science</i> , 2005 , 40, 4369-4371	4.3	6
65	Raman, photoluminescence and absorption studies on high quality AlN single crystals. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 2774-2778		15
64	Polarity and morphology in seeded growth of bulk AlN on SiC. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 2036-2039		10
63	Growth of gallium nitride via iodine vapor phase growth. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 2129-2132		3
62	Polarity control of GaN thin films grown by metalorganic vapor phase epitaxy. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 2117-2120		16
61	Growth of High Quality AlN Single Crystals and Their Optical Properties. <i>AIP Conference Proceedings</i> , 2005 ,	0	1
60	Growth of Large AlN Single Crystals Along the [0001] Direction. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 892, 448		1
59	Polarity Control of LP-MOVPE GaN using N ₂ the Carrier Gas. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 892, 620		1
58	Growth of AlN crystals on AlN/SiC seeds by AlN powder sublimation in nitrogen atmosphere. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 2004 , 9, 1		14
57	Influence of relative wafer rotation on the electrical properties of the bonded SiC/SiC interface. <i>Applied Physics Letters</i> , 2004 , 84, 3993-3995	3.4	9
56	The growth and optical properties of large, high-quality AlN single crystals. <i>Journal of Applied Physics</i> , 2004 , 96, 5870-5876	2.5	81
55	Initial Stages of Growth of Gallium Nitride via Iodine Vapor Phase Epitaxy. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 831, 31		1

54	Grain Expansion and Subsequent Seeded Growth of AlN Single Crystals. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 831, 1		4
53	Polarity Control of GaN Films Grown by Metal Organic Chemical Vapor Deposition on (0001) Sapphire Substrates. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 831, 25		1
52	Self-oriented Growth of GaN Films on Molten Gallium. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 831, 182		
51	Selective Etching of GaN from AlGaIn/GaN and AlN/GaN Structures. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 2004 , 9, 1		8
50	HIGH FIELD TRANSPORT IN AlN. <i>International Journal of High Speed Electronics and Systems</i> , 2004 , 14, 155-174	0.5	1
49	Synchrotron white beam x-ray topography (SWBXT) and high resolution triple axis diffraction studies on AlN layers grown on 4H- and 6H-SiC seeds. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 831, 631		
48	Growth of GaN from elemental Gallium and Ammonia via Modified Sandwich Growth Technique. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 831, 13		1
47	HIGH FIELD TRANSPORT IN AlN. <i>Selected Topics in Electronics and Systems</i> , 2004 , 155-174	0	
46	Crucible Selection in AlN Bulk Crystal Growth. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 798, 361		4
45	Transmission Electron Microscopy Study of the Fused Silicon/Diamond Interface. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 768, 291		1
44	Electron energy distribution during high-field transport in AlN. <i>Journal of Applied Physics</i> , 2003 , 93, 2765-2771	2	5
43	Vapor phase transport of AlN in an RF heated reactor: Low and high temperature studies. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 798, 355		5
42	Seeded growth of AlN bulk single crystals by sublimation. <i>Journal of Crystal Growth</i> , 2002 , 241, 416-420	1.6	108
41	Experimental observation of electron velocity overshoot in AlN. <i>Applied Physics Letters</i> , 2002 , 81, 5189-5191	3.4	8
40	Observations of electron velocity overshoot during high-field transport in AlN. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 743, L10.2.1		
39	SiC TO SiC WAFER BONDING. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 742, 251		3
38	Study of fusion bonding of diamond to silicon for silicon-on-diamond technology. <i>Applied Physics Letters</i> , 2002 , 81, 3275-3277	3.4	28
37	Frequency and Duty Cycle Dependence on the Pulsed Bias-Enhanced Nucleation of Highly Oriented Diamond on (100) Silicon. <i>Physica Status Solidi A</i> , 2001 , 186, 331-337		10

36	Two field-emission states of single-walled carbon nanotubes. <i>Applied Physics Letters</i> , 2001 , 78, 2058-2060	4	32
35	Electron transport in AlN under high electric fields. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 693, 666		
34	Growth of AlN bulk crystals from the vapor phase. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 693, 780		12
33	The Role of Adsorbates on the Field Emission Properties of Single-Walled Carbon Nanotubes. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 706, 1		
32	Hot Electron Transport in AlN. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 639, 11331		
31	Growth and Characterization of GaN Bulk Crystals Via Vapor Phase Transport. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 639, 3541		1
30	Hot electron transport in AlN. <i>Journal of Applied Physics</i> , 2000 , 88, 5865-5869	2.5	12
29	The influences of reactant composition and substrate material on the combustion synthesis of diamond. <i>Journal of Materials Research</i> , 1999 , 14, 259-269	2.5	5
28	Transmission electron microscopy analysis of the oriented diamond growth on nickel substrates. <i>Journal of Applied Physics</i> , 1998 , 83, 7658-7663	2.5	3
27	Electron emission mechanism from cubic boron nitride-coated molybdenum emitters. <i>Applied Physics Letters</i> , 1998 , 72, 2909-2911	3.4	14
26	Field emission energy distribution analysis of wide-band-gap field emitters. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998 , 16, 689		9
25	Electron energy distribution of diamond-coated field emitters. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998 , 16, 716		11
24	Electron emission characteristics of GaN pyramid arrays grown via organometallic vapor phase epitaxy. <i>Journal of Applied Physics</i> , 1998 , 84, 5238-5242	2.5	67
23	Field emission energy distribution analysis of cubic-BN-coated Mo emitters: Nonlinear behavior. <i>Journal of Applied Physics</i> , 1998 , 84, 3382-3385	2.5	5
22	Mechanisms of Field Emission from Cubic Boron Nitride Coated Molybdenum Emitters. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 509, 101		
21	Voltage Dependent Field Emission Energy Distribution Analysis of Wide Bandgap Materials. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 509, 131		
20	Coalesced oriented diamond films on nickel. <i>Journal of Materials Research</i> , 1998 , 13, 1120-1123	2.5	5
19	Bias voltage dependent field-emission energy distribution analysis of wide band-gap field emitters. <i>Journal of Applied Physics</i> , 1997 , 82, 5763-5772	2.5	52

18	New semiconducting substrate for heteroepitaxial growth of $K_{1-y}Na_yTa_{1-x}Nb_xO_3$. <i>Ferroelectrics</i> , 1997 , 201, 269-275	0.6	2
17	Energy distribution of field emitted electrons from diamond coated molybdenum tips. <i>Applied Physics Letters</i> , 1997 , 70, 1596-1598	3.4	45
16	Optical metastability in bulk GaN single crystals. <i>Applied Physics Letters</i> , 1997 , 71, 455-457	3.4	22
15	In situ mass spectrometry during diamond chemical vapor deposition using a low pressure flat flame. <i>Journal of Materials Research</i> , 1997 , 12, 2733-2742	2.5	16
14	Achievement of Coalesced Oriented Diamond Films on Nickel by Optical Process Control and Methane Enrichment. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 483, 213		
13	Dielectric, pyroelectric and structural properties of $LiTaO_3$ thin films grown on silicon by a modified molecular beam epitaxy. <i>Ferroelectrics</i> , 1997 , 201, 245-253	0.6	5
12	Nucleation and Growth of Oriented Diamond Films on Nickel Substrates. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 423, 281		1
11	TEM Analysis of the Observed Phases During the Growth of Oriented Diamond on Nickel Substrates. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 423, 457		2
10	Microwave Plasma Assisted CVD of Diamond on Titanium and Ti-6Al-4V. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 430, 635		1
9	Growth of Bulk AlN and GaN Single Crystals by Sublimation. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 449, 41		26
8	Issues and Examples Regarding Growth of AlN, GaN and $Al_xGa_{1-x}N$ Thin Films via OMVPE and Gas Source MBE. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 395, 3		20
7	Initial Stages of Growth of Thin Films of III-V Nitrides and Silicon Carbide Polytypes by Molecular Beam Epitaxy. <i>Materials Research Society Symposia Proceedings</i> , 1994 , 339, 351		2
6	Morphology and Interface chemistry of the Initial Growth of GaN and AlN on 6H-SiC and Sapphire. <i>Materials Research Society Symposia Proceedings</i> , 1991 , 237, 583		1
5	Design and performance of an electron cyclotron resonance plasma source for standard molecular beam epitaxy equipment. <i>Review of Scientific Instruments</i> , 1990 , 61, 2407-2411	1.7	48
4	Growth of cubic phase gallium nitride by modified molecular-beam epitaxy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1989 , 7, 701-705	2.9	335
3	Structural Defects in GaN Epilayers Grown by Gas Source Molecular Beam Epitaxy. <i>Materials Research Society Symposia Proceedings</i> , 1989 , 162, 537		51
2	Large-Area, Solar-Blind, Sub-250 nm Detection AlGaIn Avalanche Photodiodes Grown on AlN Substrates. <i>Physica Status Solidi - Rapid Research Letters</i> , 2100619	2.5	1
1	Synchrotron X-Ray Topography Characterization of Power Electronic GaN Materials. <i>Materials Science Forum</i> , 1062, 351-355	0.4	

