

# Alexander Y Polyakov

## List of Publications by Citations

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5,831  
ext. citations

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#	Paper	IF	Citations
262	Review on Ionizing Radiation Damage Effects on GaN Devices. <i>ECS Journal of Solid State Science and Technology</i> , <b>2016</b> , 5, Q35-Q60	2	182
261	Electrical characteristics of Au and Ag Schottky contacts on n-ZnO. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 1575-1577	3.4	168
260	Lifetime-limiting defects in n <sup>+</sup> -SiC epilayers. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 052110	3.4	150
259	Review of radiation damage in GaN-based materials and devices. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2013</b> , 31, 050801	2.9	145
258	Radiation effects in GaN materials and devices. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 877-887	7.1	139
257	Deep traps in GaN-based structures as affecting the performance of GaN devices. <i>Materials Science and Engineering Reports</i> , <b>2015</b> , 94, 1-56	30.9	139
256	Deep centers and their spatial distribution in undoped GaN films grown by organometallic vapor phase epitaxy. <i>Journal of Applied Physics</i> , <b>1998</b> , 84, 870-876	2.5	106
255	Radiation damage effects in Ga <sub>2</sub> O <sub>3</sub> materials and devices. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 10-24	2.1	90
254	Microstructure and optical properties of epitaxial GaN on ZnO (0001) grown by reactive molecular beam epitaxy. <i>Journal of Applied Physics</i> , <b>1998</b> , 83, 983-990	2.5	90
253	On the origin of electrically active defects in AlGa <sub>x</sub> N alloys grown by organometallic vapor phase epitaxy. <i>Journal of Applied Physics</i> , <b>1996</b> , 80, 6349-6354	2.5	87
252	Lateral Al <sub>x</sub> Ga <sub>1-x</sub> N power rectifiers with 9.7 kV reverse breakdown voltage. <i>Applied Physics Letters</i> , <b>2001</b> , 78, 823-825	3.4	85
251	Proton implantation effects on electrical and recombination properties of undoped ZnO. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 2895-2900	2.5	73
250	Point defect induced degradation of electrical properties of Ga <sub>2</sub> O <sub>3</sub> by 10 MeV proton damage. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 032107	3.4	72
249	Electrical and optical properties of Cr and Fe implanted n-GaN. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 5388-5396	3.6	65
248	Electrical properties of bulk semi-insulating E-Ga <sub>2</sub> O <sub>3</sub> (Fe). <i>Applied Physics Letters</i> , <b>2018</b> , 113, 142102	3.4	59
247	Compensation and persistent photocapacitance in homoepitaxial Sn-doped E-Ga <sub>2</sub> O <sub>3</sub> . <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 115702	2.5	57
246	Hydrogen plasma treatment effects on electrical and optical properties of n-ZnO. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 400-406	2.5	54

245	Investigation of Optical and Structural Stability of Localized Surface Plasmon Mediated Light-Emitting Diodes by Ag and Ag/SiO <sub>2</sub> Nanoparticles. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 2728-2734	15.6	53
244	Electrical and optical properties of Fe-doped semi-insulating GaN templates. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 3314-3316	3.4	50
243	Hole traps and persistent photocapacitance in proton irradiated Ga <sub>2</sub> O <sub>3</sub> films doped with Si. <i>APL Materials</i> , <b>2018</b> , 6, 096102	5.7	50
242	Fast neutron irradiation effects in n-GaN. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2007</b> , 25, 436		46
241	Defects responsible for charge carrier removal and correlation with deep level introduction in irradiated Ga <sub>2</sub> O <sub>3</sub> . <i>Applied Physics Letters</i> , <b>2018</b> , 113, 092102	3.4	46
240	Properties of highly Cr-doped AlN. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 4067-4069	3.4	45
239	Al composition dependence of breakdown voltage in Al <sub>x</sub> Ga <sub>1-x</sub> N Schottky rectifiers. <i>Applied Physics Letters</i> , <b>2000</b> , 76, 1767-1769	3.4	45
238	Deep traps responsible for hysteresis in capacitance-voltage characteristics of AlGaIn/GaN heterostructure transistors. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 232116	3.4	43
237	Neutron irradiation effects on electrical properties and deep-level spectra in undoped n-AlGaIn/GaN heterostructures. <i>Journal of Applied Physics</i> , <b>2005</b> , 98, 033529	2.5	43
236	Deep hole traps in n-GaN films grown by hydride vapor phase epitaxy. <i>Journal of Applied Physics</i> , <b>2002</b> , 91, 6580	2.5	43
235	Spatial variations of doping and lifetime in epitaxial laterally overgrown GaN. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 152114	3.4	42
234	Deep level transient spectroscopy in III-Nitrides: Decreasing the effects of series resistance. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2015</b> , 33, 061203	1.3	41
233	Comparison of hole traps in n-GaN grown by hydride vapor phase epitaxy, metal organic chemical vapor deposition, and epitaxial lateral overgrowth. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 123701	2.5	41
232	Optical and electrical properties of GaMnN films grown by molecular-beam epitaxy. <i>Journal of Applied Physics</i> , <b>2002</b> , 92, 4989-4993	2.5	41
231	Magnetic and structural characterization of Mn-implanted, single-crystal ZnGeSiN <sub>2</sub> . <i>Journal of Applied Physics</i> , <b>2002</b> , 92, 2047-2051	2.5	40
230	Electrical and optical properties of GaN films implanted with Mn and Co. <i>Journal of Applied Physics</i> , <b>2002</b> , 92, 3130-3136	2.5	40
229	Enhanced tunneling in GaN/InGaN multi-quantum-well heterojunction diodes after short-term injection annealing. <i>Journal of Applied Physics</i> , <b>2002</b> , 91, 5203-5207	2.5	38
228	Performance enhancement of GaN-based light emitting diodes by the interaction with localized surface plasmons. <i>Nano Energy</i> , <b>2015</b> , 13, 140-173	17.1	37

227	Diffusion length of non-equilibrium minority charge carriers in $\text{Ga}_2\text{O}_3$ measured by electron beam induced current. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 185704	2.5	37
226	Donor nonuniformity in undoped and Si doped n-GaN prepared by epitaxial lateral overgrowth. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 042118	3.4	37
225	Electrical properties of undoped bulk ZnO substrates. <i>Journal of Electronic Materials</i> , <b>2006</b> , 35, 663-669	1.9	37
224	Effects of laterally overgrown n-GaN thickness on defect and deep level concentrations. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2008</b> , 26, 990		36
223	Temperature dependence and current transport mechanisms in $\text{Al}_x\text{Ga}_{1-x}\text{N}$ Schottky rectifiers. <i>Applied Physics Letters</i> , <b>2000</b> , 76, 3816-3818	3.4	36
222	Deep hole traps in undoped n-GaN films grown by hydride vapor phase epitaxy. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 223702	2.5	34
221	Growth of GaBN ternary solutions by organometallic vapor phase epitaxy. <i>Journal of Electronic Materials</i> , <b>1997</b> , 26, 237-242	1.9	34
220	Fermi level pinning in heavily neutron-irradiated GaN. <i>Journal of Applied Physics</i> , <b>2006</b> , 100, 093715	2.5	34
219	Growth of AlBN solid solutions by organometallic vapor-phase epitaxy. <i>Journal of Applied Physics</i> , <b>1997</b> , 81, 1715-1719	2.5	33
218	Schottky Diodes on MOCVD Grown AlGa <sub>N</sub> Films. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , <b>1998</b> , 3, 1		33
217	Localized surface plasmon enhanced quantum efficiency of InGa <sub>N</sub> /Ga <sub>N</sub> quantum wells by Ag/SiO <sub>2</sub> nanoparticles. <i>Optics Express</i> , <b>2012</b> , 20, 2116-23	3.3	32
216	Bulk growth of high-purity 6H-SiC single crystals by halide chemical-vapor deposition. <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 084913	2.5	32
215	Fermi level dependence of hydrogen diffusivity in GaN. <i>Applied Physics Letters</i> , <b>2001</b> , 79, 1834-1836	3.4	31
214	Alpha particle detection with GaN Schottky diodes. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 103708	2.5	30
213	Role of nonradiative recombination centers and extended defects in nonpolar GaN on light emission efficiency. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 072104	3.4	30
212	Proton implantation effects on electrical and luminescent properties of p-GaN. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 3069-3074	2.5	30
211	Characterization of High Dose Mn, Fe, and Ni implantation into p-GaN. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2002</b> , 20, 721-724	2.9	30
210	Deep electron and hole traps in freestanding n-GaN grown by hydride vapor phase epitaxy. <i>Journal of Applied Physics</i> , <b>2002</b> , 92, 5241-5247	2.5	30

209	Hydrogen plasma treatment of $\text{EGa}_2\text{O}_3$ : Changes in electrical properties and deep trap spectra. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 032101	3.4	29
208	Electrical and structural properties of AlN/GaN and AlGaN/GaN heterojunctions. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 053702	2.5	29
207	Comparison of neutron irradiation effects in AlGaN/AlN/GaN, AlGaN/GaN, and InAlN/GaN heterojunctions. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2012</b> , 30, 061207	1.3	28
206	Neutron Radiation Effects in Epitaxially Laterally Overgrown GaN Films. <i>Journal of Electronic Materials</i> , <b>2007</b> , 36, 1320-1325	1.9	28
205	Neutron irradiation effects in p-GaN. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2006</b> , 24, 2256		28
204	Facile low-temperature synthesis of ZnO nanopyramid and its application to photocatalytic degradation of methyl orange dye under UV irradiation. <i>Materials Letters</i> , <b>2014</b> , 133, 224-227	3.3	26
203	Neutron transmutation doping effects in GaN. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2010</b> , 28, 608-612	1.3	26
202	Electrical properties and radiation detector performance of free-standing bulk n-GaN. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2012</b> , 30, 021205	1.3	26
201	Properties of Au and Ag Schottky diodes prepared on undoped n-ZnO. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2003</b> , 21, 1603-1608	2.9	26
200	Hydrogen plasma passivation effects on properties of p-GaN. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 3960-3965		26
199	Hydrogen passivation effects in InGaAlP and InGaP. <i>Journal of Applied Physics</i> , <b>1994</b> , 76, 7390-7398	2.5	26
198	Electrical properties, structural properties, and deep trap spectra of thin $\text{EGa}_2\text{O}_3$ films grown by halide vapor phase epitaxy on basal plane sapphire substrates. <i>APL Materials</i> , <b>2018</b> , 6, 121110	5.7	26
197	Electrical Properties, Deep Trap and Luminescence Spectra in Semi-Insulating, Czochochalski $\text{EGa}_2\text{O}_3$ (Mg). <i>ECS Journal of Solid State Science and Technology</i> , <b>2019</b> , 8, Q3019-Q3023	2	25
196	Defects at the surface of $\text{EGa}_2\text{O}_3$ produced by Ar plasma exposure. <i>APL Materials</i> , <b>2019</b> , 7, 061102	5.7	25
195	Hydrogen treatment effect on shallow and deep centers in GaSb. <i>Applied Physics Letters</i> , <b>1992</b> , 60, 1318-1320	3.2	25
194	Hydrogen passivation of defects and impurities in GaAs and InP. <i>Journal of Electronic Materials</i> , <b>1989</b> , 18, 659-670	1.9	25
193	Influence of high-temperature annealing on the properties of Fe doped semi-insulating GaN structures. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 5591-5596	2.5	24
192	Trap states in multication mesoscopic perovskite solar cells: A deep levels transient spectroscopy investigation. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 263501	3.4	24

191	Properties of Fe-doped semi-insulating GaN structures. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>2004</b> , 22, 120		23
190	Electrical, luminescent, and deep trap properties of Si doped n-GaN grown by pendeo epitaxy. <i>Journal of Applied Physics</i> , <b>2016</b> , 119, 015103	2.5	23
189	Studies of deep level centers determining the diffusion length in epitaxial layers and crystals of undoped n-GaN. <i>Journal of Applied Physics</i> , <b>2016</b> , 119, 205109	2.5	23
188	Deep trap spectra of Sn-doped $\text{EGa}_2\text{O}_3$ grown by halide vapor phase epitaxy on sapphire. <i>APL Materials</i> , <b>2019</b> , 7, 051103	5.7	22
187	10 MeV electrons irradiation effects in variously doped n-GaN. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 123703	2.5	22
186	Persistent photoconductivity in p-type ZnO(N) grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 132103	3.4	22
185	Deep traps in unpassivated and $\text{Sc}_2\text{O}_3$ -passivated AlGaIn/GaN high electron mobility transistors. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 2608-2610	3.4	22
184	Defects responsible for lifetime degradation in electron irradiated n-GaN grown by hydride vapor phase epitaxy. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 112102	3.4	21
183	Betavoltaic battery performance: Comparison of modeling and experiment. <i>Applied Radiation and Isotopes</i> , <b>2018</b> , 137, 184-189	1.7	21
182	Properties of Fe-doped, thick, freestanding GaN crystals grown by hydride vapor phase epitaxy. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2007</b> , 25, 686		21
181	Properties of Mn- and Co-doped bulk ZnO crystals. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>2005</b> , 23, 274		21
180	Electronic states in modulation doped p-AlGaIn/GaN superlattices. <i>Journal of Applied Physics</i> , <b>2001</b> , 90, 4032-4038	2.5	21
179	Recombination properties of dislocations in GaN. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 161543	2.5	21
178	Ultrawide-Bandgap p-n Heterojunction of Diamond/ $\text{EGa}_2\text{O}_3$ for a Solar-Blind Photodiode. <i>ECS Journal of Solid State Science and Technology</i> , <b>2020</b> , 9, 045004	2	20
177	Electrical Properties, Deep Levels and Luminescence Related to Fe in Bulk Semi-Insulating $\text{EGa}_2\text{O}_3$ Doped with Fe. <i>ECS Journal of Solid State Science and Technology</i> , <b>2019</b> , 8, Q3091-Q3096	2	19
176	Movement of basal plane dislocations in GaN during electron beam irradiation. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 132101	3.4	19
175	Point defects controlling non-radiative recombination in GaN blue light emitting diodes: Insights from radiation damage experiments. <i>Journal of Applied Physics</i> , <b>2017</b> , 122, 115704	2.5	19
174	Effect of electron irradiation on AlGaIn/GaN and InAlN/GaN heterojunctions. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2013</b> , 31, 022206	1.3	19

173	Enhanced light output of InGaN/GaN blue light emitting diodes with Ag nano-particles embedded in nano-needle layer. <i>Optics Express</i> , <b>2012</b> , 20, 6036-41	3.3	19
172	Residual impurities and native defects in 6H-SiC bulk crystals grown by halide chemical-vapor deposition. <i>Journal of Applied Physics</i> , <b>2006</b> , 99, 013508	2.5	19
171	Electrical and recombination properties and deep traps spectra in MOCVD ELOG GaN layers. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2006</b> , 3, 2087-2090		19
170	Electrical and optical properties of modulation-doped p-AlGaIn/GaN superlattices. <i>Applied Physics Letters</i> , <b>2001</b> , 79, 4372-4374	3.4	19
169	Review Radiation Damage in Wide and Ultra-Wide Bandgap Semiconductors. <i>ECS Journal of Solid State Science and Technology</i> , <b>2021</b> , 10, 055008	2	19
168	Defect States Determining Dynamic Trapping-Detrapping in Ga <sub>2</sub> O <sub>3</sub> Field-Effect Transistors. <i>ECS Journal of Solid State Science and Technology</i> , <b>2019</b> , 8, Q3013-Q3018	2	19
167	Spatial location of the Ec-0.6 eV electron trap in AlGaIn/GaN heterojunctions. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2014</b> , 32, 050602	1.3	18
166	Energy coupling processes in InGaIn/GaN nanopillar light emitting diodes embedded with Ag and Ag/SiO <sub>2</sub> nanoparticles. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 21749		18
165	Proton implantation effects on electrical and optical properties of undoped AlGaIn with high Al mole fraction. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>2003</b> , 21, 2500		18
164	Minority carrier diffusion length measurements in 6H-SiC. <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 053703	2.5	18
163	Carrier Removal Rates and Deep Traps in Neutron Irradiated n-GaN Films. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, H866	3.9	17
162	Electrical properties of GaN (Fe) buffers for AlGaIn/GaN high electron mobility transistor structures. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 042110	3.4	17
161	Lattice vibrational properties of ZnMgO grown by pulsed laser deposition. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 192110	3.4	17
160	Changes in electron and hole traps in GaN-based light emitting diodes from near-UV to green spectral ranges. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 192107	3.4	16
159	Anisotropy of In incorporation in GaN/InGaIn multiquantum wells prepared by epitaxial lateral overgrowth. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 142103	3.4	16
158	Deep electron and hole traps in neutron transmutation doped n-GaN. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2011</b> , 29, 041201	1.3	16
157	Electron irradiation of AlGaIn/GaN and AlN/GaN heterojunctions. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 152101	3.4	16
156	Semi-Insulating, Fe-Doped Buffer Layers Grown by Molecular Beam Epitaxy. <i>Journal of the Electrochemical Society</i> , <b>2007</b> , 154, H749	3.9	16

155	Studies of Interface States in Sc <sub>2</sub> O <sub>3</sub> /GaN, MgO/GaN, and MgScO <sub>4</sub> /GaN structures. <i>Journal of the Electrochemical Society</i> , <b>2007</b> , 154, H115	3.9	16
154	Nonuniformities of electrical resistivity in undoped 6H-SiC wafers. <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 113705	2.5	16
153	Passivation of GaAs by atomic hydrogen flow produced by the crossed beams method. <i>Semiconductor Science and Technology</i> , <b>1990</b> , 5, 242-245	1.8	16
152	Facile fabrication of free-standing light emitting diode by combination of wet chemical etchings. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 985-9	9.5	15
151	Quantum efficiency control of InGaN/GaN multi-quantum-well structures using Ag/SiO <sub>2</sub> core-shell nanoparticles. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 251114	3.4	15
150	Annealing effects on electrical properties of MgZnO films grown by pulsed laser deposition. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 083704	2.5	15
149	Electrical properties and defect states in undoped high-resistivity GaN films used in high-power rectifiers. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>2000</b> , 18, 1237		15
148	Effects of InAlN underlayer on deep traps detected in near-UV InGaN/GaN single quantum well light-emitting diodes. <i>Journal of Applied Physics</i> , <b>2019</b> , 126, 125708	2.5	14
147	Anisotropy of hydrogen plasma effects in bulk n-type $\beta$ -Ga <sub>2</sub> O <sub>3</sub> . <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 175702	2.5	14
146	Deep centers and persistent photocapacitance in AlGaIn/GaN high electron mobility transistor structures grown on Si substrates. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2013</b> , 31, 011211	1.3	14
145	Electrical and luminescent properties and deep traps spectra in GaN nanopillar layers prepared by dry etching. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 073112	2.5	14
144	Photosensitivity of Ga <sub>2</sub> O <sub>3</sub> Schottky diodes: Effects of deep acceptor traps present before and after neutron irradiation. <i>APL Materials</i> , <b>2020</b> , 8, 111105	5.7	13
143	Pulsed fast reactor neutron irradiation effects in Si doped n-type $\beta$ -Ga <sub>2</sub> O <sub>3</sub> . <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 274001	3	13
142	Deep Electron Traps Responsible for Higher Quantum Efficiency in Improved GaN/InGaIn Light Emitting Diodes Embedded with SiO <sub>2</sub> Nanoparticles. <i>ECS Journal of Solid State Science and Technology</i> , <b>2016</b> , 5, Q274-Q277	2	13
141	Degradation-induced low frequency noise and deep traps in GaN/InGaIn near-UV LEDs. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 062103	3.4	13
140	Effect of buffer layer structure on electrical and structural properties of AlGaIn/GaN high electron mobility transistors. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2012</b> , 30, 011205	1.3	13
139	Temperature stability of high-resistivity GaN buffer layers grown by metalorganic chemical vapor deposition. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2013</b> , 31, 051208	1.3	13
138	Comparison of electrical properties and deep traps in p-Al <sub>x</sub> Ga <sub>1-x</sub> N grown by molecular beam epitaxy and metal organic chemical vapor deposition. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 073706	2.5	13



137	Schottky barriers of various metals on Al <sub>0.5</sub> Ga <sub>0.5</sub> As <sub>0.05</sub> Sb <sub>0.95</sub> and the influence of hydrogen and sulfur treatments on their properties. <i>Journal of Applied Physics</i> , <b>1992</b> , 71, 4411-4414	2.5	13
136	Hydrogen passivation of donors and acceptors in InP. <i>Semiconductor Science and Technology</i> , <b>1989</b> , 4, 947-950	1.8	13
135	Deep traps and instabilities in AlGa <sub>N</sub> /Ga <sub>N</sub> high electron mobility transistors on Si substrates. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2016</b> , 34, 041216	1.3	13
134	Electron traps as major recombination centers in n-GaN films grown by metalorganic chemical vapor deposition. <i>Applied Physics Express</i> , <b>2016</b> , 9, 061002	2.4	13
133	Electrical properties of undoped GaN films grown by maskless epitaxial lateral overgrowth. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 083712	2.5	12
132	Free-Standing GaN Layer by Combination of Electrochemical and Photo-Electrochemical Etching. <i>Applied Physics Express</i> , <b>2013</b> , 6, 061001	2.4	12
131	Electrical properties and deep traps spectra in undoped and Si-doped m-plane GaN films. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 063708	2.5	12
130	Metastable centers in AlGa <sub>N</sub> /Al <sub>N</sub> /Ga <sub>N</sub> heterostructures. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2012</b> , 30, 041209	1.3	12
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