Alexander Y Polyakov

List of Publications by Year
in descending order

263	6,473	81839	110317
papers	citations	39 h-index	64 g-index

266	266	266	4030
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reviewâ€"Ionizing Radiation Damage Effects on GaN Devices. ECS Journal of Solid State Science and Technology, 2016, 5, Q35-Q60.	0.9	243
2	Deep traps in GaN-based structures as affecting the performance of GaN devices. Materials Science and Engineering Reports, 2015, 94, 1-56.	14.8	191
3	Electrical characteristics of Au and Ag Schottky contacts on n-ZnO. Applied Physics Letters, 2003, 83, 1575-1577.	1.5	180
4	Lifetime-limiting defects in nâ^' 4H-SiC epilayers. Applied Physics Letters, 2006, 88, 052110.	1.5	177
5	Radiation effects in GaN materials and devices. Journal of Materials Chemistry C, 2013, 1, 877-887.	2.7	171
6	Review of radiation damage in GaN-based materials and devices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	170
7	Radiation damage effects in Ga₂O₃ materials and devices. Journal of Materials Chemistry C, 2019, 7, 10-24.	2.7	154
8	Deep centers and their spatial distribution in undoped GaN films grown by organometallic vapor phase epitaxy. Journal of Applied Physics, 1998, 84, 870-876.	1.1	107
9	Point defect induced degradation of electrical properties of Ga2O3 by 10â€‰MeV proton damage. Applied Physics Letters, 2018, 112, .	1.5	98
10	Microstructure and optical properties of epitaxial GaN on ZnO (0001) grown by reactive molecular beam epitaxy. Journal of Applied Physics, 1998, 83, 983-990.	1.1	97
11	On the origin of electrically active defects in AlGaN alloys grown by organometallic vapor phase epitaxy. Journal of Applied Physics, 1996, 80, 6349-6354.	1.1	93
12	Lateral AlxGa1â^'xN power rectifiers with 9.7 kV reverse breakdown voltage. Applied Physics Letters, 2001, 78, 823-825.	1.5	93
13	Proton implantation effects on electrical and recombination properties of undoped ZnO. Journal of Applied Physics, 2003, 94, 2895-2900.	1.1	78
14	Electrical properties of bulk semi-insulating Î²-Ga2O3 (Fe). Applied Physics Letters, 2018, 113, .	1.5	77
15	Compensation and persistent photocapacitance in homoepitaxial Sn-doped Î²-Ga2O3. Journal of Applied Physics, 2018, 123, .	1.1	73
16	Hole traps and persistent photocapacitance in proton irradiated Î²-Ga2O3 films doped with Si. APL Materials, 2018, 6, .	2.2	73
17	Electrical and optical properties of Cr and Fe implantedn-GaN. Journal of Applied Physics, 2003, 93, 5388-5396.	1.1	72
18	Defects responsible for charge carrier removal and correlation with deep level introduction in irradiated Î²-Ga2O3. Applied Physics Letters, 2018, 113, .	1.5	62

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19	Electrical and optical properties of Fe-doped semi-insulating GaN templates. Applied Physics Letters, 2003, 83, 3314-3316.	1.5	58
20	Investigation of Optical and Structural Stability of Localized Surface Plasmon Mediated Lightâ€Emitting Diodes by Ag and Ag/SiO‹sub›2‹/sub› Nanoparticles. Advanced Functional Materials, 2012, 22, 2728-2734.	7.8	58
21	Reviewâ€"Radiation Damage in Wide and Ultra-Wide Bandgap Semiconductors. ECS Journal of Solid State Science and Technology, 2021, 10, 055008.	0.9	56
22	Hydrogen plasma treatment effects on electrical and optical properties ofn-ZnO. Journal of Applied Physics, 2003, 94, 400-406.	1.1	55
23	Fast neutron irradiation effects in n-GaN. Journal of Vacuum Science & Technology B, 2007, 25, 436.	1.3	54
24	Deep traps responsible for hysteresis in capacitance-voltage characteristics of AlGaNâˆ•GaN heterostructure transistors. Applied Physics Letters, 2007, 91, .	1.5	51
25	Diffusion length of non-equilibrium minority charge carriers in Î²-Ga2O3 measured by electron beam induced current. Journal of Applied Physics, 2018, 123, .	1.1	50
26	Al composition dependence of breakdown voltage in AlxGa1â^'xN Schottky rectifiers. Applied Physics Letters, 2000, 76, 1767-1769.	1.5	49
27	Comparison of hole traps in n-GaN grown by hydride vapor phase epitaxy, metal organic chemical vapor deposition, and epitaxial lateral overgrowth. Journal of Applied Physics, 2011, 109, 123701.	1.1	49
28	Properties of highly Cr-doped AlN. Applied Physics Letters, 2004, 85, 4067-4069.	1.5	48
29	Deep level transient spectroscopy in III-Nitrides: Decreasing the effects of series resistance. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, .	0.6	48
30	Performance enhancement of GaN-based light emitting diodes by the interaction with localized surface plasmons. Nano Energy, 2015, 13, 140-173.	8.2	48
31	Neutron irradiation effects on electrical properties and deep-level spectra in undoped n-AlGaNâˆ•GaN heterostructures. Journal of Applied Physics, 2005, 98, 033529.	1.1	47
32	Deep hole traps in n-GaN films grown by hydride vapor phase epitaxy. Journal of Applied Physics, 2002, 91, 6580.	1.1	46
33	Optical and electrical properties of GaMnN films grown by molecular-beam epitaxy. Journal of Applied Physics, 2002, 92, 4989-4993.	1.1	45
34	Electrical and optical properties of GaN films implanted with Mn and Co. Journal of Applied Physics, 2002, 92, 3130-3136.	1.1	44
35	Magnetic and structural characterization of Mn-implanted, single-crystal ZnGeSiN2. Journal of Applied Physics, 2002, 92, 2047-2051.	1.1	43
36	Enhanced tunneling in GaN/InGaN multi-quantum-well heterojunction diodes after short-term injection annealing. Journal of Applied Physics, 2002, 91, 5203-5207.	1.1	43

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37	Spatial variations of doping and lifetime in epitaxial laterally overgrown GaN. Applied Physics Letters, 2007, 90, 152114.	1.5	43
38	Electrical Properties, Deep Trap and Luminescence Spectra in Semi-Insulating, Czochralski Î²-Ga₂O₃ (Mg). ECS Journal of Solid State Science and Technology, 2019, 8, Q3019-Q3023.	0.9	41
39	Electrical properties of undoped bulk ZnO substrates. Journal of Electronic Materials, 2006, 35, 663-669.	1.0	40
40	Effects of laterally overgrown n-GaN thickness on defect and deep level concentrations. Journal of Vacuum Science & Technology B, 2008, 26, 990.	1.3	39
41	Deep hole traps in undoped n-GaN films grown by hydride vapor phase epitaxy. Journal of Applied Physics, 2014, 115, .	1.1	39
42	Hydrogen plasma treatment of Î² -Ga2O3: Changes in electrical properties and deep trap spectra. Applied Physics Letters, 2019, 115, .	1.5	39
43	Growth of GaBN ternary solutions by organometallic vapor phase epitaxy. Journal of Electronic Materials, 1997, 26, 237-242.	1.0	38
44	Temperature dependence and current transport mechanisms in AlxGa1â^'xN Schottky rectifiers. Applied Physics Letters, 2000, 76, 3816-3818.	1.5	38
45	Donor nonuniformity in undoped and Si doped n-GaN prepared by epitaxial lateral overgrowth. Applied Physics Letters, 2008, 92, 042118.	1.5	38
46	Fermi level pinning in heavily neutron-irradiated GaN. Journal of Applied Physics, 2006, 100, 093715.	1.1	37
47	Alpha particle detection with GaN Schottky diodes. Journal of Applied Physics, 2009, 106, .	1.1	37
48	Localized surface plasmon enhanced quantum efficiency of InGaN/GaN quantum wells by Ag/SiO_2 nanoparticles. Optics Express, 2012, 20, 2116.	1.7	36
49	Defects at the surface of Î²-Ga2O3 produced by Ar plasma exposure. APL Materials, 2019, 7, .	2.2	36
50	Bulk growth of high-purity 6H-SiC single crystals by halide chemical-vapor deposition. Journal of Applied Physics, 2005, 97, 084913.	1.1	35
51	Deep trap spectra of Sn-doped Î±-Ga2O3 grown by halide vapor phase epitaxy on sapphire. APL Materials, 2019, 7, .	2.2	35
52	Deep level defect states in Î²-, Î±-, and É›-Ga2O3 crystals and films: Impact on device performance. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	0.9	35
53	Fermi level dependence of hydrogen diffusivity in GaN. Applied Physics Letters, 2001, 79, 1834-1836.	1.5	34
54	Editorsâ€™ Choiceâ€"Electrical Properties and Deep Traps in Î±-Ga₂O₃:Sn Films Grown on Sapphire by Halide Vapor Phase Epitaxy. ECS Journal of Solid State Science and Technology, 2020, 9, 045003.	0.9	34

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55	Growth of AlBN solid solutions by organometallic vapor-phase epitaxy. Journal of Applied Physics, 1997, 81, 1715-1719.	1.1	33
56	Schottky Diodes on MOCVD Grown AlGaN Films.. MRS Internet Journal of Nitride Semiconductor Research, 1998, 3, 1.	1.0	33
57	Trap states in multication mesoscopic perovskite solar cells: A deep levels transient spectroscopy investigation. Applied Physics Letters, 2018, 113, .	1.5	33
58	Electrical properties, structural properties, and deep trap spectra of thin Î±-Ga2O3 films grown by halide vapor phase epitaxy on basal plane sapphire substrates. APL Materials, 2018, 6, .	2.2	33
59	Hydrogen passivation of defects and impurities in GaAs and InP. Journal of Electronic Materials, 1989, 18, 659-670.	1.0	32
60	Neutron irradiation effects in p-GaN. Journal of Vacuum Science & Technology B, 2006, 24, 2256.	1.3	32
61	Role of nonradiative recombination centers and extended defects in nonpolar GaN on light emission efficiency. Applied Physics Letters, 2011, 98, .	1.5	32
62	Characterization of High Dose Mn, Fe, and Ni implantation intop-GaN. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 721-724.	0.9	31
63	Proton implantation effects on electrical and luminescent properties of p-GaN. Journal of Applied Physics, 2003, 94, 3069-3074.	1.1	31
64	Electrical and structural properties of AlN/GaN and AlGaN/GaN heterojunctions. Journal of Applied Physics, 2008, 104, 053702.	1.1	31
65	Electrical properties and radiation detector performance of free-standing bulk n-GaN. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, .	0.6	31
66	Ultrawide-Bandgap p-n Heterojunction of Diamond/Î²-Ga₂O₃ for a Solar-Blind Photodiode. ECS Journal of Solid State Science and Technology, 2020, 9, 045004.	0.9	31
67	Deep electron and hole traps in freestandingn-GaN grown by hydride vapor phase epitaxy. Journal of Applied Physics, 2002, 92, 5241-5247.	1.1	30
68	Hydrogen plasma passivation effects on properties of p-GaN. Journal of Applied Physics, 2003, 94, 3960-3965.	1.1	30
69	Neutron Radiation Effects in Epitaxially Laterally Overgrown GaN Films. Journal of Electronic Materials, 2007, 36, 1320-1325.	1.0	30
70	Betavoltaic battery performance: Comparison of modeling and experiment. Applied Radiation and Isotopes, 2018, 137, 184-189.	0.7	30
71	Defect States Determining Dynamic Trapping-Detrapping in Î²-Ga₂O₃ Field-Effect Transistors. ECS Journal of Solid State Science and Technology, 2019, 8, Q3013-Q3018.	0.9	30
72	Photosensitivity of Ga2O3 Schottky diodes: Effects of deep acceptor traps present before and after neutron irradiation. APL Materials, 2020, 8, .	2.2	30

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73	Hydrogen passivation effects in InGaAlP and InGaP. Journal of Applied Physics, 1994, 76, 7390-7398.	1.1	29
74	Comparison of neutron irradiation effects in AlGaN/AlN/GaN, AlGaN/GaN, and InAlN/GaN heterojunctions. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, .	0.6	29
75	Properties of Au and Ag Schottky diodes prepared on undoped n-ZnO. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 1603-1608.	0.9	28
76	Neutron transmutation doping effects in GaN. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 608-612.	0.6	28
77	Facile low-temperature synthesis of ZnO nanopyramid and its application to photocatalytic degradation of methyl orange dye under UV irradiation. Materials Letters, 2014, 133, 224-227.	1.3	28
78	Electrical, luminescent, and deep trap properties of Si doped n-GaN grown by pendeo epitaxy. Journal of Applied Physics, 2016, 119, .	1.1	27
79	Hydrogen treatment effect on shallow and deep centers in GaSb. Applied Physics Letters, 1992, 60, 1318-1320.	1.5	26
80	10 MeV electrons irradiation effects in variously doped n-GaN. Journal of Applied Physics, 2011, 109, .	1.1	26
81	Defects responsible for lifetime degradation in electron irradiated n-GaN grown by hydride vapor phase epitaxy. Applied Physics Letters, 2017, 110, .	1.5	26
82	Recombination properties of dislocations in GaN. Journal of Applied Physics, 2018, 123, 161543.	1.1	26
83	Experimental estimation of electronâ€“hole pair creation energy in Î² -Ga2O3. Applied Physics Letters, 2021, 118, .	1.5	26
84	Diffusion of dopants and impurities in Î²-Ga2O3. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	26
85	Influence of high-temperature annealing on the properties of Fe doped semi-insulating GaN structures. Journal of Applied Physics, 2004, 95, 5591-5596.	1.1	25
86	Studies of deep level centers determining the diffusion length in epitaxial layers and crystals of undoped n-GaN. Journal of Applied Physics, 2016, 119, .	1.1	25
87	Anisotropy of hydrogen plasma effects in bulk n-type Î²-Ga2O3. Journal of Applied Physics, 2020, 127, .	1.1	25
88	Deep traps in unpassivated and Sc2O3-passivated AlGaN/GaN high electron mobility transistors. Applied Physics Letters, 2003, 83, 2608-2610.	1.5	24
89	Properties of Fe-doped semi-insulating GaN structures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 120.	1.6	24
90	Properties of Fe-doped, thick, freestanding GaN crystals grown by hydride vapor phase epitaxy. Journal of Vacuum Science & Technology B, 2007, 25, 686.	1.3	24

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91	Energy coupling processes in InGaN/GaN nanopillar light emitting diodes embedded with Ag and Ag/SiO2 nanoparticles. Journal of Materials Chemistry, 2012, 22, 21749.	6.7	24
92	Movement of basal plane dislocations in GaN during electron beam irradiation. Applied Physics Letters, 2015, 106, .	1.5	24
93	Point defects controlling non-radiative recombination in GaN blue light emitting diodes: Insights from radiation damage experiments. Journal of Applied Physics, 2017, 122, .	1.1	24
94	Electrical Properties, Deep Levels and Luminescence Related to Fe in Bulk Semi-Insulating Î²-Ga₂O₃ Doped with Fe. ECS Journal of Solid State Science and Technology, 2019, 8, Q3091-Q3096.	0.9	24
95	Persistent photoconductivity in p-type ZnO(N) grown by molecular beam epitaxy. Applied Physics Letters, 2007, 90, 132103.	1.5	23
96	Effect of electron irradiation on AlGaN/GaN and InAlN/GaN heterojunctions. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 022206.	0.6	23
97	Facile Fabrication of Free-Standing Light Emitting Diode by Combination of Wet Chemical Etchings. ACS Applied Materials & Interfaces, 2014, 6, 985-989.	4.0	23
98	Electronic states in modulation dopedp-AlGaN/GaN superlattices. Journal of Applied Physics, 2001, 90, 4032-4038.	1.1	22
99	Properties of Mn- and Co-doped bulk ZnO crystals. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 274.	1.6	22
100	Pulsed fast reactor neutron irradiation effects in Si doped n-type Î²-Ga₂O₃. Journal Physics D: Applied Physics, 2020, 53, 274001.	1.3	22
101	Changes in electron and hole traps in GaN-based light emitting diodes from near-UV to green spectral ranges. Applied Physics Letters, 2017, 110, 192107.	1.5	21
102	Degradation-induced low frequency noise and deep traps in GaN/InGaN near-UV LEDs. Applied Physics Letters, 2017, 111, .	1.5	21
103	Effects of InAlN underlayer on deep traps detected in near-UV InGaN/GaN single quantum well light-emitting diodes. Journal of Applied Physics, 2019, 126, .	1.1	21
104	Lattice vibrational properties of ZnMgO grown by pulsed laser deposition. Applied Physics Letters, 2007, 90, 192110.	1.5	20
105	Deep electron and hole traps in neutron transmutation doped n-GaN. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	0.6	20
106	Electrical and optical properties of modulation-doped p-AlGaN/GaN superlattices. Applied Physics Letters, 2001, 79, 4372-4374.	1.5	19
107	Proton implantation effects on electrical and optical properties of undoped AlGaN with high Al mole fraction. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 2500.	1.6	19
108	Residual impurities and native defects in 6Hâ€SiC bulk crystals grown by halide chemical-vapor deposition. Journal of Applied Physics, 2006, 99, 013508.	1.1	19

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109	Electrical and recombination properties and deep traps spectra in MOCVD ELOG GaN layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 2087-2090.	0.8	19
110	Studies of Interface States in Sc[sub 2]O[sub 3]âˆ•GaN, MgOâˆ•GaN, and MgScOâˆ•GaN structures. Journal of the Electrochemical Society, 2007, 154, H115.	1.3	19
111	Enhanced light output of InGaN/GaN blue light emitting diodes with Ag nano-particles embedded in nano-needle layer. Optics Express, 2012, 20, 6036.	1.7	19
112	Spatial location of the Ec-0.6 eV electron trap in AlGaN/GaN heterojunctions. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	0.6	19
113	Nonuniformities of electrical resistivity in undoped 6H-SiC wafers. Journal of Applied Physics, 2005, 97, 113705.	1.1	18
114	Minority carrier diffusion length measurements in 6Hâ€“SiC. Journal of Applied Physics, 2005, 97, 053703.	1.1	18
115	Electron irradiation of AlGaNâˆ•GaN and AlNâˆ•GaN heterojunctions. Applied Physics Letters, 2008, 93, 152101.	1.5	18
116	Deep centers and persistent photocapacitance in AlGaN/GaN high electron mobility transistor structures grown on Si substrates. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 011211.	0.6	18
117	Electric field dependence of major electron trap emission in bulk Î²-Ga₂O₃: Pooleâ€“Frenkel effect versus phonon-assisted tunneling. Journal Physics D: Applied Physics, 2020, 53, 304001.	1.3	18
118	Semi-Insulating, Fe-Doped Buffer Layers Grown by Molecular Beam Epitaxy. Journal of the Electrochemical Society, 2007, 154, H749.	1.3	17
119	Electrical properties of GaN (Fe) buffers for AlGaNâˆ•GaN high electron mobility transistor structures. Applied Physics Letters, 2008, 92, .	1.5	17
120	Quantum efficiency control of InGaN/GaN multi-quantum-well structures using Ag/SiO2 core-shell nanoparticles. Applied Physics Letters, 2011, 99, 251114.	1.5	17
121	Carrier Removal Rates and Deep Traps in Neutron Irradiated n-GaN Films. Journal of the Electrochemical Society, 2011, 158, H866.	1.3	17
122	Passivation of GaAs by atomic hydrogen flow produced by the crossed beams method. Semiconductor Science and Technology, 1990, 5, 242-245.	1.0	16
123	Anisotropy of In incorporation in GaN/InGaN multiquantum wells prepared by epitaxial lateral overgrowth. Applied Physics Letters, 2009, 94, 142103.	1.5	16
124	Role of hole trapping by deep acceptors in electron-beam-induced current measurements in Î²-Ga₂O₃ vertical rectifiers. Journal Physics D: Applied Physics, 2020, 53, 495108.	1.3	16
125	Electrical properties and defect states in undoped high-resistivity GaN films used in high-power rectifiers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1237.	1.6	15
126	Annealing effects on electrical properties of MgZnO films grown by pulsed laser deposition. Journal of Applied Physics, 2008, 103, 083704.	1.1	15

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127	Comparison of electrical properties and deep traps in p-AlxGa1â^'xN grown by molecular beam epitaxy and metal organic chemical vapor deposition. Journal of Applied Physics, 2009, 106, 073706.	1.1	15
128	Electrical and luminescent properties and deep traps spectra in GaN nanopillar layers prepared by dry etching. Journal of Applied Physics, 2012, 112, 073112.	1.1	15
129	Temperature stability of high-resistivity GaN buffer layers grown by metalorganic chemical vapor deposition. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	0.6	15
130	Deep traps and instabilities in AlGaN/GaN high electron mobility transistors on Si substrates. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	0.6	15
131	Deep Electron Traps Responsible for Higher Quantum Efficiency in Improved GaN/InGaN Light Emitting Diodes Embedded with SiO₂Nanoparticles. ECS Journal of Solid State Science and Technology, 2016, 5, Q274-Q277.	0.9	15
132	Assessing mobile ions contributions to admittance spectra and current-voltage characteristics of 3D and 2D/3D perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 215, 110670.	3.0	15
133	Hydrogen passivation of donors and acceptors in InP. Semiconductor Science and Technology, 1989, 4, 947-950.	1.0	14
134	Highâ€resistivity GaAs grown by highâ€temperature molecularâ€beam epitaxy. Journal of Applied Physics, 1992, 72, 1320-1322.	1.1	14
135	Schottky barriers of various metals on Al0.5Ga0.5As0.05Sb0.95and the influence of hydrogen and sulfur treatments on their properties. Journal of Applied Physics, 1992, 71, 4411-4414.	1.1	14
136	Electrical nonuniformities and their impact on the electron mobility in semi-insulating SiC crystals. Journal of Applied Physics, 2004, 96, 411-414.	1.1	14
137	Electron Irradiation Effects in GaNâ•InGaN Multiple Quantum Well Structures. Journal of the Electrochemical Society, 2008, 155, H31.	1.3	14
138	Metastable centers in AlGaN/AlN/GaN heterostructures. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, .	0.6	14
139	Electron traps as major recombination centers in n-GaN films grown by metalorganic chemical vapor deposition. Applied Physics Express, 2016, 9, 061002.	1.1	14
140	Electrical properties and deep trap spectra in Ga2O3 films grown by halide vapor phase epitaxy on p-type diamond substrates. Journal of Applied Physics, 2021, 129, .	1.1	14
141	Band line-up and mechanisms of current flow in n-GaN/p-SiC and n-AlGaN/p-SiC heterojunctions. Applied Physics Letters, 2002, 80, 3352-3354.	1.5	13
142	Effect of buffer layer structure on electrical and structural properties of AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 011205.	0.6	13
143	Electrical properties of undoped GaN films grown by maskless epitaxial lateral overgrowth. Journal of Applied Physics, 2013, 113, .	1.1	13
144	Free-Standing GaN Layer by Combination of Electrochemical and Photo-Electrochemical Etching. Applied Physics Express, 2013, 6, 061001.	1.1	13

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145	Device performance of inverted polymer solar cells with AgSiO_2 nanoparticles in active layer. Optics Express, 2015, 23, A211.	1.7	13
146	Deep Traps in AlGaN/GaN High Electron Mobility Transistors on SiC. ECS Journal of Solid State Science and Technology, 2016, 5, Q260-Q265.	0.9	13
147	Deep Electron and Hole Traps in Electron-Irradiated Green GaN/InGaN Light Emitting Diodes. ECS Journal of Solid State Science and Technology, 2017, 6, Q127-Q131.	0.9	13
148	Electrical Properties of Bulk, Non-Polar, Semi-Insulating M-GaN Grown by the Ammonothermal Method. ECS Journal of Solid State Science and Technology, 2018, 7, P260-P265.	0.9	13
149	Defect States Induced in GaN-Based Green Light Emitting Diodes by Electron Irradiation. ECS Journal of Solid State Science and Technology, 2018, 7, P323-P328.	0.9	13
150	Structural and electrical properties of thick Î²-Ga2O3 grown on GaN/sapphire templates. APL Materials, 2022, 10, .	2.2	13
151	The influence of hydrogen plasma treatment and proton implantation on the electrical properties of InAs. Journal of Applied Physics, 1993, 73, 2882-2887.	1.1	12
152	Properties and annealing stability of Fe doped semi-insulating GaN structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2476-2479.	0.8	12
153	Properties of 6Hâ€“SiC crystals grown by hydrogen-assisted physical vapor transport. Applied Physics Letters, 2005, 86, 202102.	1.5	12
154	Neutron irradiation effects in undoped n-AlGaN. Journal of Vacuum Science & Technology B, 2006, 24, 1094.	1.3	12
155	Electrical properties and deep traps spectra in undoped and Si-doped m-plane GaN films. Journal of Applied Physics, 2009, 105, 063708.	1.1	12
156	Properties of undoped GaN/InGaN multi-quantum-wells and GaN/InGaN p-n junctions prepared by epitaxial lateral overgrowth. Journal of Applied Physics, 2009, 105, .	1.1	12
157	Nonpolar GaN grown on Si by hydride vapor phase epitaxy using anodized Al nanomask. Applied Physics Letters, 2009, 94, 022114.	1.5	12
158	Hydride vapor phase GaN films with reduced density of residual electrons and deep traps. Journal of Applied Physics, 2014, 115, .	1.1	12
159	Electrical, Luminescent and Structural Properties of Nanopillar GaN/InGaN Multi-Quantum-Well Structures Prepared by Dry Etching. ECS Journal of Solid State Science and Technology, 2016, 5, Q165-Q170.	0.9	12
160	Current relaxation analysis in AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	0.6	12
161	Crystal orientation dependence of deep level spectra in proton irradiated bulk Î²-Ga2O3. Journal of Applied Physics, 2021, 130, .	1.1	12
162	Electrical and optical properties of GaCrN films grown by molecular beam epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1.	1.6	11

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163	Enhanced optical properties of nanopillar light-emitting diodes by coupling localized surface plasmon of Ag/SiO₂nanoparticles. Applied Physics Express, 2015, 8, 092002.	1.1	11
164	Radiation enhanced basal plane dislocation glide in GaN. Japanese Journal of Applied Physics, 2016, 55, 05FM03.	0.8	11
165	Electron irradiation of nearâ€UV GaN/InGaN light emitting diodes. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700372.	0.8	11
166	Trapping Phenomena in InAlN/GaN High Electron Mobility Transistors. ECS Journal of Solid State Science and Technology, 2018, 7, Q1-Q7.	0.9	11
167	Quantum Barrier Growth Temperature Affects Deep Traps Spectra of InGaN Blue Light Emitting Diodes. ECS Journal of Solid State Science and Technology, 2018, 7, Q80-Q84.	0.9	11
168	Point defect creation by proton and carbon irradiation of Î±-Ga2O3. Journal of Applied Physics, 2022, 132, .	1.1	11
169	Changes in electrical and optical properties of p-AlGaN due to proton implantation. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 2291.	1.6	10
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