

# Nikolai B Smirnov

## List of Publications by Year in descending order

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236  
papers

4,652  
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101384

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182168

51  
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236  
all docs

236  
docs citations

236  
times ranked

2881  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical characteristics of Au and Ag Schottky contacts on n-ZnO. Applied Physics Letters, 2003, 83, 1575-1577.	1.5	180
2	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
3	Point defect induced degradation of electrical properties of Ga <sub>2</sub> O <sub>3</sub> by 10 <sup>16</sup> MeV proton damage. Applied Physics Letters, 2018, 112, .	1.5	98
4	Lateral Al <sub>x</sub> Ga <sub>1-x</sub> N power rectifiers with 9.7 kV reverse breakdown voltage. Applied Physics Letters, 2001, 78, 823-825.	1.5	93
5	Proton implantation effects on electrical and recombination properties of undoped ZnO. Journal of Applied Physics, 2003, 94, 2895-2900.	1.1	78
6	Electrical properties of bulk semi-insulating $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> (Fe). Applied Physics Letters, 2018, 113, .	1.5	77
7	Compensation and persistent photocapacitance in homoepitaxial Sn-doped $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> . Journal of Applied Physics, 2018, 123, .	1.1	73
8	Hole traps and persistent photocapacitance in proton irradiated $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> films doped with Si. APL Materials, 2018, 6, .	2.2	73
9	Electrical and optical properties of Cr and Fe implanted n-GaN. Journal of Applied Physics, 2003, 93, 5388-5396.	1.1	72
10	Effects of proton implantation on electrical and recombination properties of n-GaN. Solid-State Electronics, 2000, 44, 1971-1983.	0.8	63
11	Defects responsible for charge carrier removal and correlation with deep level introduction in irradiated $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> . Applied Physics Letters, 2018, 113, .	1.5	62
12	Electrical and optical properties of Fe-doped semi-insulating GaN templates. Applied Physics Letters, 2003, 83, 3314-3316.	1.5	58
13	Hydrogen plasma treatment effects on electrical and optical properties of n-ZnO. Journal of Applied Physics, 2003, 94, 400-406.	1.1	55
14	Fast neutron irradiation effects in n-GaN. Journal of Vacuum Science & Technology B, 2007, 25, 436.	1.3	54
15	Deep traps responsible for hysteresis in capacitance-voltage characteristics of Al <sub>x</sub> Ga <sub>1-x</sub> N/GaN heterostructure transistors. Applied Physics Letters, 2007, 91, .	1.5	51
16	Optical and magnetic properties of ZnO bulk crystals implanted with Cr and Fe. Materials Science in Semiconductor Processing, 2004, 7, 77-81.	1.9	50
17	Diffusion length of non-equilibrium minority charge carriers in $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> measured by electron beam induced current. Journal of Applied Physics, 2018, 123, .	1.1	50
18	Al composition dependence of breakdown voltage in Al <sub>x</sub> Ga <sub>1-x</sub> N Schottky rectifiers. Applied Physics Letters, 2000, 76, 1767-1769.	1.5	49

#	ARTICLE	IF	CITATIONS
19	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
20	Properties of highly Cr-doped AlN. Applied Physics Letters, 2004, 85, 4067-4069.	1.5	48
21	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
22	Neutron irradiation effects on electrical properties and deep-level spectra in undoped n-AlGaIn <sup>x</sup> GaN heterostructures. Journal of Applied Physics, 2005, 98, 033529.	1.1	47
23	Deep hole traps in n-GaN films grown by hydride vapor phase epitaxy. Journal of Applied Physics, 2002, 91, 6580.	1.1	46
24	Optical and electrical properties of GaMnN films grown by molecular-beam epitaxy. Journal of Applied Physics, 2002, 92, 4989-4993.	1.1	45
25	Electrical and optical properties of GaN films implanted with Mn and Co. Journal of Applied Physics, 2002, 92, 3130-3136.	1.1	44
26	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
27	Spatial variations of doping and lifetime in epitaxial laterally overgrown GaN. Applied Physics Letters, 2007, 90, 152114.	1.5	43
28	Electrical Properties, Deep Trap and Luminescence Spectra in Semi-Insulating, Czochralski $\text{In}^{2+}\text{Ga}_2\text{O}_3$ (Mg). ECS Journal of Solid State Science and Technology, 2019, 8, Q3019-Q3023.	0.9	41
29	Electrical properties of undoped bulk ZnO substrates. Journal of Electronic Materials, 2006, 35, 663-669.	1.0	40
30	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
31	Deep hole traps in undoped n-GaN films grown by hydride vapor phase epitaxy. Journal of Applied Physics, 2014, 115, .	1.1	39
32	Hydrogen plasma treatment of $\text{In}^{2+}\text{Ga}_2\text{O}_3$ : Changes in electrical properties and deep trap spectra. Applied Physics Letters, 2019, 115, .	1.5	39
33	Temperature dependence and current transport mechanisms in $\text{Al}_x\text{Ga}_{1-x}\text{N}$ Schottky rectifiers. Applied Physics Letters, 2000, 76, 3816-3818.	1.5	38
34	Donor nonuniformity in undoped and Si doped n-GaN prepared by epitaxial lateral overgrowth. Applied Physics Letters, 2008, 92, 042118.	1.5	38
35	Fermi level pinning in heavily neutron-irradiated GaN. Journal of Applied Physics, 2006, 100, 093715.	1.1	37
36	Alpha particle detection with GaN Schottky diodes. Journal of Applied Physics, 2009, 106, .	1.1	37

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37	Defects at the surface of $\text{In}^{2+}\text{-Ga}_2\text{O}_3$ produced by Ar plasma exposure. APL Materials, 2019, 7, .	2.2	36
38	Deep trap spectra of Sn-doped $\text{In}^{\pm}\text{-Ga}_2\text{O}_3$ grown by halide vapor phase epitaxy on sapphire. APL Materials, 2019, 7, .	2.2	35
39	Deep centers in AlGaIn-based light emitting diode structures. Solid-State Electronics, 1999, 43, 1929-1936.	0.8	34
40	Fermi level dependence of hydrogen diffusivity in GaN. Applied Physics Letters, 2001, 79, 1834-1836.	1.5	34
41	Editors' Choice "Electrical Properties and Deep Traps in $\text{In}^{\pm}\text{-Ga}_2\text{O}_3\text{:Sn}$ Films Grown on Sapphire by Halide Vapor Phase Epitaxy. ECS Journal of Solid State Science and Technology, 2020, 9, 045003.	0.9	34
42	Trap states in multication mesoscopic perovskite solar cells: A deep levels transient spectroscopy investigation. Applied Physics Letters, 2018, 113, .	1.5	33
43	Electrical properties, structural properties, and deep trap spectra of thin $\text{In}^{\pm}\text{-Ga}_2\text{O}_3$ films grown by halide vapor phase epitaxy on basal plane sapphire substrates. APL Materials, 2018, 6, .	2.2	33
44	Neutron irradiation effects in p-GaN. Journal of Vacuum Science & Technology B, 2006, 24, 2256.	1.3	32
45	Role of nonradiative recombination centers and extended defects in nonpolar GaN on light emission efficiency. Applied Physics Letters, 2011, 98, .	1.5	32
46	Proton implantation effects on electrical and luminescent properties of p-GaN. Journal of Applied Physics, 2003, 94, 3069-3074.	1.1	31
47	Electrical and structural properties of AlN/GaN and AlGaIn/GaN heterojunctions. Journal of Applied Physics, 2008, 104, 053702.	1.1	31
48	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
49	Deep electron and hole traps in freestanding n-GaN grown by hydride vapor phase epitaxy. Journal of Applied Physics, 2002, 92, 5241-5247.	1.1	30
50	Hydrogen plasma passivation effects on properties of p-GaN. Journal of Applied Physics, 2003, 94, 3960-3965.	1.1	30
51	Neutron Radiation Effects in Epitaxially Laterally Overgrown GaN Films. Journal of Electronic Materials, 2007, 36, 1320-1325.	1.0	30
52	Defect States Determining Dynamic Trapping-Detrapping in $\text{In}^{2+}\text{-Ga}_2\text{O}_3$ Field-Effect Transistors. ECS Journal of Solid State Science and Technology, 2019, 8, Q3013-Q3018.	0.9	30
53	Photosensitivity of $\text{Ga}_2\text{O}_3$ Schottky diodes: Effects of deep acceptor traps present before and after neutron irradiation. APL Materials, 2020, 8, .	2.2	30
54	Hydrogen passivation effects in InGaAlP and InGaP. Journal of Applied Physics, 1994, 76, 7390-7398.	1.1	29

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55	Comparison of neutron irradiation effects in AlGaIn/AlN/GaN, AlGaIn/GaN, and InAlN/GaN heterojunctions. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, .	0.6	29
56	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
57	Neutron transmutation doping effects in GaN. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 608-612.	0.6	28
58	Deep traps determining the non-radiative lifetime and defect band yellow luminescence in n-GaN. Journal of Alloys and Compounds, 2016, 686, 1044-1052.	2.8	28
59	Electrical, luminescent, and deep trap properties of Si doped n-GaN grown by pendeo epitaxy. Journal of Applied Physics, 2016, 119, .	1.1	27
60	10 MeV electrons irradiation effects in variously doped n-GaN. Journal of Applied Physics, 2011, 109, .	1.1	26
61	Defects responsible for lifetime degradation in electron irradiated n-GaN grown by hydride vapor phase epitaxy. Applied Physics Letters, 2017, 110, .	1.5	26
62	Experimental estimation of electronâ€“hole pair creation energy in <b> <i>Î²</i></b>-Ga2O3. Applied Physics Letters, 2021, 118, .	1.5	26
63	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
64	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
65	Anisotropy of hydrogen plasma effects in bulk n-type Î²-Ga2O3. Journal of Applied Physics, 2020, 127, .	1.1	25
66	Deep traps in unpassivated and Sc2O3-passivated AlGaIn/GaN high electron mobility transistors. Applied Physics Letters, 2003, 83, 2608-2610.	1.5	24
67	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
68	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
69	Electrical properties and deep traps spectra of a-plane GaN films grown on r-plane sapphire. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 166, 220-224.	1.7	24
70	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
71	Electrical Properties, Deep Levels and Luminescence Related to Fe in Bulk Semi-Insulating Î²-Ga<sub>2</sub>O<sub>3</sub> Doped with Fe. ECS Journal of Solid State Science and Technology, 2019, 8, Q3091-Q3096.	0.9	24
72	Persistent photoconductivity in p-type ZnO(N) grown by molecular beam epitaxy. Applied Physics Letters, 2007, 90, 132103.	1.5	23

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73	Effect of electron irradiation on AlGa <sub>N</sub> /Ga <sub>N</sub> and InAlN/GaN heterojunctions. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, 022206.	0.6	23
74	Electronic states in modulation doped p-AlGa <sub>N</sub> /Ga <sub>N</sub> superlattices. Journal of Applied Physics, 2001, 90, 4032-4038.	1.1	22
75	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
76	Electrical and structural properties of GaN films and GaN/InGa <sub>N</sub> light-emitting diodes grown on porous GaN templates fabricated by combined electrochemical and photoelectrochemical etching. Journal of Alloys and Compounds, 2014, 589, 507-512.	2.8	22
77	Pulsed fast reactor neutron irradiation effects in Si doped n-type $\text{In}^{2-}\text{Ga}_{2}\text{O}_{3}$ . Journal Physics D: Applied Physics, 2020, 53, 274001.	1.3	22
78	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
79	Degradation-induced low frequency noise and deep traps in GaN/InGa <sub>N</sub> near-UV LEDs. Applied Physics Letters, 2017, 111, .	1.5	21
80	Effects of InAlN underlayer on deep traps detected in near-UV InGa <sub>N</sub> /Ga <sub>N</sub> single quantum well light-emitting diodes. Journal of Applied Physics, 2019, 126, .	1.1	21
81	Lattice vibrational properties of ZnMgO grown by pulsed laser deposition. Applied Physics Letters, 2007, 90, 192110.	1.5	20
82	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
83	Electrical and optical properties of modulation-doped p-AlGa <sub>N</sub> /Ga <sub>N</sub> superlattices. Applied Physics Letters, 2001, 79, 4372-4374.	1.5	19
84	Proton implantation effects on electrical and optical properties of undoped AlGa <sub>N</sub> 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
85	Residual impurities and native defects in 6H- $\text{SiC}$ bulk crystals grown by halide chemical-vapor deposition. Journal of Applied Physics, 2006, 99, 013508.	1.1	19
86	Electrical and recombination properties and deep traps spectra in MOCVD ELOG Ga <sub>N</sub> layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 2087-2090.	0.8	19
87	Neutron irradiation effects in AlGa <sub>N</sub> /Ga <sub>N</sub> heterojunctions. Physica B: Condensed Matter, 2006, 376-377, 523-526.	1.3	19
88	Studies of Interface States in $\text{Sc}_{2}\text{O}_{3}/\text{GaN}$ , $\text{MgO}/\text{GaN}$ , and $\text{MgScO}/\text{GaN}$ structures. Journal of the Electrochemical Society, 2007, 154, H115.	1.3	19
89	Spatial location of the Ec-0.6 eV electron trap in AlGa <sub>N</sub> /Ga <sub>N</sub> heterojunctions. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2014, 32, .	0.6	19
90	Studies of deep centers in dilute GaAs <sub>N</sub> and InGaAs <sub>N</sub> films grown by molecular beam epitaxy. Solid-State Electronics, 2002, 46, 2155-2160.	0.8	18

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91	Electron irradiation of AlGaIn <sup>x</sup> GaN and AlN <sup>x</sup> GaN heterojunctions. Applied Physics Letters, 2008, 93, 152101.	1.5	18
92	Deep centers and persistent photocapacitance in AlGaIn/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
93	Electric field dependence of major electron trap emission in bulk $\text{In}^{2-}\text{Ga}_{2-3}\text{O}_{3-3}$ : Poole-Frenkel effect versus phonon-assisted tunneling. Journal Physics D: Applied Physics, 2020, 53, 304001.	1.3	18
94	Semi-Insulating, Fe-Doped Buffer Layers Grown by Molecular Beam Epitaxy. Journal of the Electrochemical Society, 2007, 154, H749.	1.3	17
95	Electrical properties of GaN (Fe) buffers for AlGaIn <sup>x</sup> GaN high electron mobility transistor structures. Applied Physics Letters, 2008, 92, .	1.5	17
96	Carrier Removal Rates and Deep Traps in Neutron Irradiated n-GaN Films. Journal of the Electrochemical Society, 2011, 158, H866.	1.3	17
97	Study of GaAs as a material for solar neutrino detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 439, 651-661.	0.7	16
98	Anisotropy of In incorporation in GaN/InGaIn multiquantum wells prepared by epitaxial lateral overgrowth. Applied Physics Letters, 2009, 94, 142103.	1.5	16
99	Role of hole trapping by deep acceptors in electron-beam-induced current measurements in $\text{In}^{2-}\text{Ga}_{2-3}\text{O}_{3-3}$ vertical rectifiers. Journal Physics D: Applied Physics, 2020, 53, 495108.	1.3	16
100	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
101	Comparison of deep levels spectra and electrical properties of GaAs crystals grown by vertical Bridgeman and by liquid encapsulated Czochralski methods. Solid-State Electronics, 2002, 46, 269-277.	0.8	15
102	Annealing effects on electrical properties of MgZnO films grown by pulsed laser deposition. Journal of Applied Physics, 2008, 103, 083704.	1.1	15
103	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. Journal of Applied Physics, 2009, 106, 073706.	1.1	15
104	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
105	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
106	Deep traps and instabilities in AlGaIn/GaN high electron mobility transistors on Si substrates. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	0.6	15
107	Deep Electron Traps Responsible for Higher Quantum Efficiency in Improved GaN/InGaIn Light Emitting Diodes Embedded with SiO <sub>2</sub> Nanoparticles. ECS Journal of Solid State Science and Technology, 2016, 5, Q274-Q277.	0.9	15
108	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



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109	Studies of defects in Mg doped p-GaN films grown by hydride vapor phase epitaxy on SiC substrates. Solid-State Electronics, 2001, 45, 261-265.	0.8	14
110	Electron Irradiation Effects in GaN/InGaN Multiple Quantum Well Structures. Journal of the Electrochemical Society, 2008, 155, H31.	1.3	14
111	EBIC and CL studies of ELOG GaN films. Superlattices and Microstructures, 2009, 45, 308-313.	1.4	14
112	Metastable centers in AlGaIn/GaN heterostructures. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2012, 30, .	0.6	14
113	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
114	Semi-insulating LEC GaAs as a material for radiation detectors: materials science issues. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 466, 14-24.	0.7	13
115	Band line-up and mechanisms of current flow in n-GaN/p-SiC and n-AlGaIn/p-SiC heterojunctions. Applied Physics Letters, 2002, 80, 3352-3354.	1.5	13
116	Effect of buffer layer structure on electrical and structural properties of AlGaIn/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2012, 30, 011205.	0.6	13
117	Electrical properties of undoped GaN films grown by maskless epitaxial lateral overgrowth. Journal of Applied Physics, 2013, 113, .	1.1	13
118	Deep Traps in AlGaIn/GaN High Electron Mobility Transistors on SiC. ECS Journal of Solid State Science and Technology, 2016, 5, Q260-Q265.	0.9	13
119	Deep Electron and Hole Traps in Electron-Irradiated Green GaN/InGaIn Light Emitting Diodes. ECS Journal of Solid State Science and Technology, 2017, 6, Q127-Q131.	0.9	13
120	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
121	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
122	Studies of deep centers in high-resistivity p-GaN films doped with Zn and grown on SiC by hydride vapor phase epitaxy. Solid-State Electronics, 2001, 45, 249-253.	0.8	12
123	Deep centers spectra and scanning electron microscope studies of p-GaN films prepared by metallorganic chemical vapor deposition on sapphire. Solid-State Electronics, 2001, 45, 255-259.	0.8	12
124	Deep levels studies of AlGaIn/GaN superlattices. Solid-State Electronics, 2003, 47, 671-676.	0.8	12
125	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
126	Neutron irradiation effects in undoped n-AlGaIn. Journal of Vacuum Science & Technology B, 2006, 24, 1094.	1.3	12



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127	Deep-level studies in GaN layers grown by epitaxial lateral overgrowth. Thin Solid Films, 2008, 516, 2035-2040.	0.8	12
128	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
129	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
130	Nonpolar GaN grown on Si by hydride vapor phase epitaxy using anodized Al nanomask. Applied Physics Letters, 2009, 94, 022114.	1.5	12
131	Electrical, optical, and structural properties of GaN films prepared by hydride vapor phase epitaxy. Journal of Alloys and Compounds, 2014, 617, 200-206.	2.8	12
132	Hydride vapor phase GaN films with reduced density of residual electrons and deep traps. Journal of Applied Physics, 2014, 115, .	1.1	12
133	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
134	Current relaxation analysis in AlGaIn/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2017, 35, .	0.6	12
135	Crystal orientation dependence of deep level spectra in proton irradiated bulk $\hat{r}^2$ -Ga <sub>2</sub> O <sub>3</sub> . Journal of Applied Physics, 2021, 130, .	1.1	12
136	Hydrogen and nitrogen plasma treatment effects on surface properties of GaSb and InGaAsSb. Solid-State Electronics, 1995, 38, 1743-1745.	0.8	11
137	Properties of Mn and Co implanted ZnO crystals. Solid-State Electronics, 2003, 47, 1523-1531.	0.8	11
138	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
139	Electron irradiation of near-UV GaN/InGaN light emitting diodes. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700372.	0.8	11
140	Trapping Phenomena in InAlN/GaN High Electron Mobility Transistors. ECS Journal of Solid State Science and Technology, 2018, 7, Q1-Q7.	0.9	11
141	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
142	Changes in electrical and optical properties of p-AlGaIn 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
143	Electrical Properties of ZnO(P) and ZnMgO(P) Films Grown by Pulsed Laser Deposition. Journal of the Electrochemical Society, 2007, 154, H825.	1.3	10
144	Electrical and luminescent properties and deep traps spectra of N-polar GaN films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 166, 83-88.	1.7	10

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145	GaN as a detector of $\hat{\mu}$ -particles and neutrons. Proceedings of SPIE, 2011, , .	0.8	10
146	Properties of nanopillar structures prepared by dry etching of undoped GaN grown by maskless epitaxial overgrowth. Journal of Alloys and Compounds, 2013, 554, 258-263.	2.8	10
147	Effects of annealing in oxygen on electrical properties of AlGaIn/GaN heterostructures grown on Si. Journal of Alloys and Compounds, 2013, 575, 17-23.	2.8	10
148	Effect of nanopillar sublayer embedded with SiO <sub>2</sub> on deep traps in green GaN/InGaIn light emitting diodes. Journal of Applied Physics, 2017, 121, .	1.1	10
149	Gate-Lag in AlGaIn/GaN High Electron Mobility Transistors: A Model of Charge Capture. ECS Journal of Solid State Science and Technology, 2017, 6, S3034-S3039.	0.9	10
150	Deep trap analysis in green light emitting diodes: Problems and solutions. Journal of Applied Physics, 2019, 125, .	1.1	10
151	Mechanisms of Fermi level pinning in Schottky barriers on InGaAsSb and AlGaAsSb. Solid-State Electronics, 1993, 36, 1371-1373.	0.8	9
152	Ion implantation effects in GaSb. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1994, 27, 129-136.	1.7	9
153	The properties of heavily compensated high resistivity GaSb crystals. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1994, 22, 279-282.	1.7	9
154	Microcathodoluminescence and electron beam induced current observation of dislocations in freestanding thick n-GaN sample grown by hydride vapor phase epitaxy. Journal of Applied Physics, 2002, 92, 5238-5240.	1.1	9
155	Comparison of the electrical and luminescent properties of p-layer-up and n-layer-up GaN/InGaIn light emitting diodes and the effects of Mn doping of the upper n-layer. Solid-State Electronics, 2003, 47, 981-987.	0.8	9
156	Electrical and optical properties of p-GaN films implanted with transition metal impurities. Journal of Physics Condensed Matter, 2004, 16, 2967-2972.	0.7	9
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