Katharina Lorenz

List of Publications by Year
in descending order

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245	4,119	126858	182361
papers	citations	33	51
		h-index	g-index

248	248	248	2914
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Europium-Implanted AlN Nanowires for Red Light-Emitting Diodes. ACS Applied Nano Materials, 2022, 5, 972-984.	2.4	11
2	Role of the metal supply pathway on silicon patterning by oblique ion beam sputtering. Applied Surface Science, 2022, 580, 152267.	3.1	6
3	Ion Implantation into Nonconventional GaN Structures. Physics, 2022, 4, 548-564.	0.5	1
4	Surface nanopatterning by ion beam irradiation: compositional effects. Journal of Physics Condensed Matter, 2022, 34, 333002.	0.7	8
5	Enhancing the luminescence yield of Cr3+ in Î² -Ga2O3 by proton irradiation. Applied Physics Letters, 2022, 120, .	1.5	8
6	Crystal mosaicity determined by a novel layer deconvolution Williamsonâ€“Hall method. CrystEngComm, 2021, 23, 2048-2062.	1.3	8
7	Molybdenum Oxide Thin Films Grown on Flexible ITO-Coated PET Substrates. Materials, 2021, 14, 821.	1.3	12
8	Eu3+ optical activation engineering in Al Ga1-N nanowires for red solid-state nano-emitters. Applied Materials Today, 2021, 22, 100893.	2.3	4
9	Unravelling the secrets of the resistance of GaN to strongly ionising radiation. Communications Physics, 2021, 4, .	2.0	26
10	Self-powered proton detectors based on GaN coreâ€“shell pâ€“n microwires. Applied Physics Letters, 2021, 118, .	1.5	3
11	An insider view of the Portuguese ion beam laboratory. European Physical Journal Plus, 2021, 136, 1.	1.2	15
12	Exploring swift-heavy ion irradiation of InGaN/GaN multiple quantum wells for green-emitters: the use of Raman and photoluminescence to assess the irradiation effects on the optical and structural properties. Journal of Materials Chemistry C, 2021, 9, 8809-8818.	2.7	5
13	Estimating the uncertainties of strain and damage analysis by X-ray diffraction in ion implanted MoO3. Nuclear Instruments & Methods in Physics Research B, 2020, 478, 290-296.	0.6	1
14	Ion beam induced current analysis in GaN microwires. EPJ Web of Conferences, 2020, 233, 05001.	0.1	1
15	XANES/EXAFS study of the Lu and Y incorporation in the single crystal Tb3Sc2Al3O12 Faraday rotator. Journal of Applied Physics, 2020, 127, 115106.	1.1	5
16	Acceptor state anchoring in gallium nitride. Applied Physics Letters, 2020, 116, .	1.5	2
17	Tribological performance of the pair human teeth vs 3D printed zirconia: An in vitro chewing simulation study. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103900.	1.5	12
18	Size control of GaN nanocrystals formed by ion implantation in thermally grown silicon dioxide. Journal of Applied Physics, 2020, 127, 034302.	1.1	4

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19	Suitability of 3D printed pieces of nanocrystalline zirconia for dental applications. Dental Materials, 2020, 36, 442-455.	1.6	57
20	Advanced Monte Carlo Simulations for Ion-Channeling Studies of Complex Defects in Crystals. Springer Series in Materials Science, 2020, , 133-160.	0.4	3
21	Micro-Opto-Electro-Mechanical Device Based on Flexible Î²-Ga₂O₃ÂMicro-Lamellas. ECS Journal of Solid State Science and Technology, 2019, 8, Q3235-Q3241.	0.9	3
22	Studying electronic properties in GaN without electrical contacts using Î³-Î³ vs eâ^'-Î³ Perturbed Angular Correlations. Scientific Reports, 2019, 9, 15734.	1.6	4
23	Modelling of Optical Damage in Nanorippled ZnO Produced by Ion Irradiation. Crystals, 2019, 9, 453.	1.0	4
24	Measuring strain caused by ion implantation in GaN. Materials Science in Semiconductor Processing, 2019, 98, 95-99.	1.9	15
25	Luminescence properties of MOCVD grown Al0.2Ga0.8N layers implanted with Tb. Journal of Luminescence, 2019, 210, 413-424.	1.5	1
26	Eu Activation inÎ²-Ga2O3MOVPE Thin Films by Ion Implantation. ECS Journal of Solid State Science and Technology, 2019, 8, Q3097-Q3102.	0.9	15
27	Incorporation of Europium into GaN Nanowires by Ion Implantation. Journal of Physical Chemistry C, 2019, 123, 11874-11887.	1.5	12
28	Engineering strain and conductivity of MoO3 by ion implantation. Acta Materialia, 2019, 169, 15-27.	3.8	19
29	Monte Carlo simulations of ion channeling in crystals containing dislocations and randomly displaced atoms. Journal of Applied Physics, 2019, 126, .	1.1	21
30	RBS/C, XRR, and XRD Studies of Damage Buildup in Erâ€implanted ZnO. Physica Status Solidi (B): Basic Research, 2019, 256, 1800364.	0.7	17
31	Strain detection in crystalline heterostructures using bidimensional blocking patterns of channelled particles. Journal Physics D: Applied Physics, 2018, 51, 115304.	1.3	3
32	Defect formation and optical activation of Tb implanted AlxGa1â^'xN films using channeled implantation at different temperatures. Surface and Coatings Technology, 2018, 355, 29-39.	2.2	9
33	Optical investigations of europium ion implanted in nitride-based diode structures. Surface and Coatings Technology, 2018, 355, 40-44.	2.2	9
34	Crystal damage analysis of implanted AlxGa1-xN (0â€¯â‰¤â€¯xâ€¯â‰¤â€¯1) by ion beam techniques. Surface and Coatings Technology, 2018, 355, 55-60.	2.2	9
35	Electrical characterization of molybdenum oxide lamellar crystals irradiated with UV light and proton beams. Surface and Coatings Technology, 2018, 355, 50-54.	2.2	5
36	Radiation sensors based on GaN microwires. Journal Physics D: Applied Physics, 2018, 51, 175105.	1.3	8

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37	Euâ€“Mg defects and donorâ€“acceptor pairs in GaN: photodissociation and the excitation transfer problem. Journal Physics D: Applied Physics, 2018, 51, 065106.	1.3	5
38	Multiple optical centers in Eu-implanted AlN nanowires for solid-state lighting applications. Applied Physics Letters, 2018, 113, 201905.	1.5	8
39	Hysteretic Photochromic Switching (HPS) in Doubly Doped GaN(Mg):Euâ€”A Summary of Recent Results. Materials, 2018, 11, 1800.	1.3	5
40	In Situ Characterization and Modification of Î²â€Ga₂O₃ Flakes Using an Ion Microâ€Probe. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800190.	0.8	7
41	Eu-Doped AlGaN/GaN Superlattice-Based Diode Structure for Red Lighting: Excitation Mechanisms and Active Sites. ACS Applied Nano Materials, 2018, 1, 3845-3858.	2.4	14
42	Spatially resolved optical activation of Eu ions by laser irradiation in implanted hexagonal MoO3 microrods. Applied Physics Letters, 2018, 113, 031902.	1.5	4
43	GaN/AlGaN multiple quantum wells grown on transparent and conductive (-201)-oriented Î²-Ga2O3 substrate for UV vertical light emitting devices. Applied Physics Letters, 2018, 113, .	1.5	44
44	Concurrent segregation and erosion effects in medium-energy iron beam patterning of silicon surfaces. Journal of Physics Condensed Matter, 2018, 30, 274001.	0.7	7
45	Raman and cathodoluminescence analysis of transition metal ion implanted Ga2O3 nanowires. Journal of Luminescence, 2017, 191, 56-60.	1.5	15
46	Validity of Vegardâ€™s rule for Al1â^'xInxN (0.08â€‰â€‰<â€‰â€‰xâ€‰â€‰<â€‰â€‰0.28) thin films grown on GaN templates. Physics D: Applied Physics, 2017, 50, 205107.	1.3	10
47	Infrared dielectric functions, phonon modes, and free-charge carrier properties of high-Al-content AlxGa1â^'xN alloys determined by mid infrared spectroscopic ellipsometry and optical Hall effect. Journal of Applied Physics, 2017, 121, .	1.1	14
48	Effects of thermal annealing on the structural and electronic properties of rare earth-implanted MoO₃ nanoplates. CrystEngComm, 2017, 19, 2339-2348.	1.3	6
49	Hysteretic photochromic switching of Eu-Mg defects in GaN links the shallow transient and deep ground states of the Mg acceptor. Scientific Reports, 2017, 7, 41982.	1.6	11
50	Effect of buried extended defects on the radiation tolerance of ZnO. Applied Physics Letters, 2017, 110, 172103.	1.5	8
51	Doping Î²-Ga₂O₃ with europium: influence of the implantation and annealing temperature. Journal Physics D: Applied Physics, 2017, 50, 325101.	1.3	26
52	Implantation damage formation in a-, c- and m-plane GaN. Acta Materialia, 2017, 123, 177-187.	3.8	73
53	Luminescence of Eu3+ in GaN(Mg, Eu): Transitions from the 5D1 level. Applied Physics Letters, 2017, 111, .	1.5	12
54	Impact of implantation geometry and fluence on structural properties of AlxGa1-xN implanted with thulium. Journal of Applied Physics, 2016, 120, .	1.1	10

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55	Utilization of native oxygen in Eu(RE)-doped GaN for enabling device compatibility in optoelectronic applications. Scientific Reports, 2016, 6, 18808.	1.6	29
56	Identifying the influence of the intrinsic defects in Gd-doped ZnO thin-films. Journal of Applied Physics, 2016, 119, .	1.1	52
57	Direct Measurement of Polarization-Induced Fields in GaN/AlN by Nano-Beam Electron Diffraction. Scientific Reports, 2016, 6, 28459.	1.6	25
58	Spectroscopic analysis of the NIR emission in Tm implanted AlxGa1-xN layers. Journal of Applied Physics, 2016, 120, 081701.	1.1	9
59	Correction to â€œSpectroscopic Analysis of Eu³⁺ Implanted and Annealed GaN Layers and Nanowiresâ€• Journal of Physical Chemistry C, 2016, 120, 6907-6908.	1.5	5
60	Quantitative x-ray diffraction analysis of bimodal damage distributions in Tm implanted Al_{0.15}Ga_{0.85}N. Journal Physics D: Applied Physics, 2016, 49, 135308.	1.3	19
61	Ionâ€beam induced effects in multiâ€layered semiconductor systems. Physica Status Solidi (B): Basic Research, 2016, 253, 2099-2109.	0.7	3
62	Self-organised silicide nanodot patterning by medium-energy ion beam sputtering of Si(100): local correlation between the morphology and metal content. Nanotechnology, 2016, 27, 444001.	1.3	12
63	Crystalfield symmetries of luminescent Eu3+ centers in GaN: The importance of the 5D to 7F1 transition. Applied Physics Letters, 2016, 108, .	1.5	28
64	Analysis of the Tb3+ recombination in ion implanted Al Ga1â^'N (0â‰¤xâ‰¤1) layers. Journal of Luminescence, 2016, 178, 249-258.	1.5	7
65	Study of damage formation and annealing of implanted III-nitride semiconductors for optoelectronic devices. Nuclear Instruments & Methods in Physics Research B, 2016, 379, 251-254.	0.6	17
66	Mechanisms of Implantation Damage Formation in Al_xGa_{1â€“x}N Compounds. Journal of Physical Chemistry C, 2016, 120, 7277-7283.	1.5	33
67	Quantum well intermixing and radiation effects in InGaN/GaN multi quantum wells. , 2016, , .		1
68	Effect of AlN content on the lattice site location of terbium ions in Al_xGa_{1â^'x}N compounds. Semiconductor Science and Technology, 2016, 31, 035026.	1.0	12
69	Quantitative Chemical Mapping of InGaN Quantum Wells from Calibrated High-Angle Annular Dark Field Micrographs. Microscopy and Microanalysis, 2015, 21, 994-1005.	0.2	3
70	Luminescence studies on green emitting InGaN/GaN MQWs implanted with nitrogen. Scientific Reports, 2015, 5, 9703.	1.6	19
71	Photoluminescence studies of a perceived white light emission from a monolithic InGaN/GaN quantum well structure. Scientific Reports, 2015, 5, 13739.	1.6	19
72	Indirect excitation of Eu³⁺in GaN codoped with Mg and Eu. Journal of Physics: Conference Series, 2015, 619, 012025.	0.3	2

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73	Analysis of the stability of InGaN/GaN multiquantum wells against ion beam intermixing. Nanotechnology, 2015, 26, 425703.	1.3	6
74	Ion damage overrides structural disorder in silicon surface nanopatterning by low-energy ion beam sputtering. Europhysics Letters, 2015, 109, 48003.	0.7	13
75	Rare earth ion implantation and optical activation in nitride semiconductors for multicolor emission. Semiconductor Science and Technology, 2015, 30, 044004.	1.0	9
76	Spectroscopic Analysis of Eu³⁺ Implanted and Annealed GaN Layers and Nanowires. Journal of Physical Chemistry C, 2015, 119, 17954-17964.	1.5	13
77	Composition, structure and morphology of Al_{1â^'x}In_xN thin films grown on Al_{1â^'y}Ga_yN templates with different GaN contents. Journal Physics D: Applied Physics, 2015, 48, 015103.	1.3	7
78	High In-content InGaN layers synthesized by plasma-assisted molecular-beam epitaxy: Growth conditions, strain relaxation, and In incorporation kinetics. Journal of Applied Physics, 2014, 116, .	1.1	36
79	Lattice location of Hf and its interaction with other impurities in LiNbO3: a review. Optical Engineering, 2014, 53, 060901.	0.5	4
80	Intense luminescence emission from rare-earth-doped MoO3nanoplates and lamellar crystals for optoelectronic applications. Journal Physics D: Applied Physics, 2014, 47, 355105.	1.3	28
81	GaN:Pr³⁺ nanostructures for red solid state light emission. RSC Advances, 2014, 4, 62869-62877.	1.7	5
82	High optical and structural quality of GaN epilayers grown on (2Â¯01) Î²-Ga2O3. Applied Physics Letters, 2014, 105, .	1.5	60
83	Doping of Ga₂O₃bulk crystals and NWs by ion implantation. Proceedings of SPIE, 2014, , .	0.8	12
84	ZnO micro/nanocrystals grown by laser assisted flow deposition. , 2014, , .		1
85	Lattice location of Hf and its interaction with other impurities in LiNbO₃: an integrated review. Proceedings of SPIE, 2014, , .	0.8	1
86	Study of the relationship between crystal structure and luminescence in rare-earth-implanted Ga2O3 nanowires during annealing treatments. Journal of Materials Science, 2014, 49, 1279-1285.	1.7	29
87	Structural and optical properties of Ga auto-incorporated InAlN epilayers. Journal of Crystal Growth, 2014, 408, 97-101.	0.7	19
88	Europiumâ€doped GaN(Mg): beyond the limits of the lightâ€emitting diode. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 662-665.	0.8	17
89	Determination of Ga auto-incorporation in nominal InAlN epilayers grown by MOCVD. Journal of Materials Chemistry C, 2014, 2, 5787.	2.7	21
90	Functional Nanowires: Synthesis, Characterization and Applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 313-314.	0.8	0

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91	Sequential multiple-step europium ion implantation and annealing of GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 253-257.	0.8	9
92	Composition and luminescence studies of InGaN epilayers grown at different hydrogen flow rates. Semiconductor Science and Technology, 2013, 28, 065011.	1.0	13
93	Selective ion-induced intermixing and damage in low-dimensional GaN/AlN quantum structures. Nanotechnology, 2013, 24, 505717.	1.3	14
94	Structural and luminescence properties of Eu and Er implanted Bi2O3 nanowires for optoelectronic applications. Journal of Materials Chemistry C, 2013, 1, 7920.	2.7	38
95	Characterisation of IIIâ€nitride materials by synchrotron Xâ€ray microdiffraction reciprocal space mapping. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 481-485.	0.8	5
96	The influence of photon excitation and proton irradiation on the luminescence properties of yttria stabilized zirconia doped with praseodymium ions. Nuclear Instruments & Methods in Physics Research B, 2013, 306, 207-211.	0.6	2
97	Enhanced red emission from praseodymium-doped GaN nanowires by defect engineering. Acta Materialia, 2013, 61, 3278-3284.	3.8	22
98	Lattice site location and luminescence studies of AlxGa1â^'xN alloys doped with thulium ions. Nuclear Instruments & Methods in Physics Research B, 2013, 307, 495-498.	0.6	6
99	A comparative study of photo-, cathodo- and ionoluminescence of GaN nanowires implanted with rare earth ions. Nuclear Instruments & Methods in Physics Research B, 2013, 306, 201-206.	0.6	8
100	Nanostructures and thin films of transparent conductive oxides studied by perturbed angular correlations. Physica Status Solidi (B): Basic Research, 2013, 250, 801-808.	0.7	4
101	Microprobe analysis, iono- and photo-luminescence of Mn2+ activated ZnGa2O4 fibres. Nuclear Instruments & Methods in Physics Research B, 2013, 306, 195-200.	0.6	12
102	Towards the understanding of the intentionally induced yellow luminescence in GaN nanowires. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 667-672.	0.8	8
103	Comparison of low- and room-temperature damage formation in Ar ion implanted GaN and ZnO. Nuclear Instruments & Methods in Physics Research B, 2013, 307, 394-398.	0.6	34
104	Temperature-dependent hysteresis of the emission spectrum of Eu-implanted, Mg-doped HVPE GaN. AIP Conference Proceedings, 2013, , .	0.3	5
105	Mechanisms of Damage Formation during Rare Earth Ion Implantation in Nitride Semiconductors. Japanese Journal of Applied Physics, 2013, 52, 11NH02.	0.8	14
106	On the origin of strain relaxation in epitaxial CdZnO layers. , 2013, , .		0
107	Disorder induced violet/blue luminescence in rfâ€deposited ZnO films. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 662-666.	0.8	13
108	Characterization of InGaN and InAlN Epilayers by Microdiffraction X-Ray Reciprocal Space Mapping. Materials Research Society Symposia Proceedings, 2012, 1396, .	0.1	0

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109	Mechanisms of damage formation in Eu-implanted AlN. Journal of Applied Physics, 2012, 112, .	1.1	27
110	Ion beams as a tool for the characterization of near-pseudomorphic CdZnO epilayers. , 2012, , .		1
111	Enhanced dynamic annealing and optical activation of Eu implanted a-plane GaN. Europhysics Letters, 2012, 97, 68004.	0.7	15
112	Single phase a-plane MgZnO epilayers for UV optoelectronics: substitutional behaviour of Mg at large contents. CrystEngComm, 2012, 14, 1637-1640.	1.3	29
113	Doped gallium oxide nanowires for photonics. Proceedings of SPIE, 2012, , .	0.8	10
114	Damage formation and recovery in Fe implanted 6Hâ€“SiC. Nuclear Instruments & Methods in Physics Research B, 2012, 286, 89-92.	0.6	4
115	Cd ion implantation in AlN. Nuclear Instruments & Methods in Physics Research B, 2012, 289, 43-46.	0.6	6
116	High pressure annealing of Europium implanted GaN. Proceedings of SPIE, 2012, , .	0.8	23
117	Implantation Damage Formation in GaN and ZnO. , 2012, , .		2
118	Optical doping of Al[sub x]Ga[sub 1â^'x]N compounds by ion implantation of Tm ions. AIP Conference Proceedings, 2012, , .	0.3	5
119	Unintentional incorporation of H and related structural and freeâ€electron properties of câ€•and aâ€plane InN. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 91-94.	0.8	4
120	Influence of neutron irradiation and annealing on the optical properties of GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1016-1020.	0.8	4
121	Ion implantation of Cd and Ag into AlN and GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1060-1064.	0.8	9
122	Cd doping of AlN via ion implantation studied with perturbed angular correlation. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1032-1035.	0.8	4
123	It's not easy being green: Strategies for allâ€nitrides, allâ€colour solid state lighting. Physica Status Solidi - Rapid Research Letters, 2012, 6, 49-52.	1.2	56
124	Band gap engineering approaches to increase InGaN/GaN LED efficiency. Optical and Quantum Electronics, 2012, 44, 83-88.	1.5	17
125	Rare earth co-doping nitride layers for visible light. Materials Chemistry and Physics, 2012, 134, 716-720.	2.0	16
126	High precision determination of the InN content of Al1â^'xInxN thin films by Rutherford backscattering spectrometry. Nuclear Instruments & Methods in Physics Research B, 2012, 273, 105-108.	0.6	8

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127	AlN content influence on the properties of AlxGa1â^'xN doped with Pr ions. Nuclear Instruments & Methods in Physics Research B, 2012, 273, 149-152.	0.6	4
128	Band gap engineering approaches to increase InGaN/GaN LED efficiency. , 2011, , .		0
129	A mechanism for damage formation in GaN during rare earth ion implantation at medium range energy and room temperature. Journal of Applied Physics, 2011, 109, .	1.1	47
130	Cathodoluminescence of rare earth implanted Ga2O3and GeO2nanostructures. Nanotechnology, 2011, 22, 285706.	1.3	39
131	Radiation damage formation and annealing in GaN and ZnO. Proceedings of SPIE, 2011, , .	0.8	54
132	Effect of Eu-implantation and annealing on the GaN quantum dots excitonic recombination. Nanoscale Research Letters, 2011, 6, 378.	3.1	6
133	Free electron properties and hydrogen in InN grown by MOVPE. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1179-1182.	0.8	9
134	The photoluminescence/excitation (PL/E) spectroscopy of Eu-implanted GaN. Optical Materials, 2011, 33, 1063-1065.	1.7	27
135	Rapid thermal annealing of rare earth implanted ZnO epitaxial layers. Optical Materials, 2011, 33, 1139-1142.	1.7	33
136	The role of the annealing temperature on the optical and structural properties of Eu doped GaN/AlN QD. Optical Materials, 2011, 33, 1045-1049.	1.7	3
137	Structural and optical properties of Er implanted AlN thin films: Green and infrared photoluminescence at room temperature. Optical Materials, 2011, 33, 1055-1058.	1.7	11
138	Mechanisms of damage formation in Eu-implanted GaN probed by X-ray diffraction. Europhysics Letters, 2011, 96, 46002.	0.7	39
139	The high sensitivity of InN under rare earth ion implantation at medium range energy. Journal Physics D: Applied Physics, 2011, 44, 295402.	1.3	13
140	A Double Scattering Analytical Model For Elastic Recoil Detection Analysis. , 2011, , .		1
141	Unintentional incorporation of hydrogen in wurtzite InN with different surface orientations. Journal of Applied Physics, 2011, 110, .	1.1	3
142	Zeeman splittings of the ⁵D₀â€“⁷F₂ transitions of Eu³⁺ ions implanted into GaN. Materials Research Society Symposia Proceedings, 2011, 1290, 1.	0.1	6
143	Damage formation in GaN under medium energy range implantation of rare earth ions: a combined TEM, XRD and RBS/C investigation. Materials Research Society Symposia Proceedings, 2011, 1342, 35.	0.1	0
144	Ternary AlGaN Alloys with High Al Content and Enhanced Compositional Homogeneity Grown by Plasma-Assisted Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 2011, 50, 031001.	0.8	9

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145	Hydrogen In Group-III Nitrides: An Ion Beam Analysis Study. , 2011, , .		1
146	Defect studies and optical activation of Yb doped GaN. Journal of Physics: Conference Series, 2010, 249, 012053.	0.3	2
147	An In-defect complex as a possible explanation for high luminous efficacy of InGaN and AlInN based devices. Hyperfine Interactions, 2010, 197, 187-191.	0.2	8
148	Thin film depth profiling using simultaneous particle backscattering and nuclear resonance profiling. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 1829-1832.	0.6	18
149	High temperature annealing of Europium implanted AlN. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2907-2910.	0.6	4
150	Al1â^'xInxN/GaN bilayers: Structure, morphology, and optical properties. Physica Status Solidi (B): Basic Research, 2010, 247, 1740-1746.	0.7	10
151	Influence of thermal annealing on the structural and optical properties of GaN/AlN quantum dots. Physica Status Solidi (B): Basic Research, 2010, 247, 1675-1678.	0.7	5
152	Total reflectance and Raman studies in Al_yIn_xGa_{1â€xâ€y}N epitaxial layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 56-59.	0.8	0
153	Effect of annealing on AlN/GaN quantum dot heterostructures: advanced ion beam characterization and Xâ€ray study of lowâ€dimensional structures. Surface and Interface Analysis, 2010, 42, 1552-1555.	0.8	6
154	The Characterization of N Interstitials and Dangling Bond Point Defects on Ionâ€Implanted GaN Nanowires Studied by Photoluminescence and Xâ€Ray Absorption Spectroscopy. Journal of the American Ceramic Society, 2010, 93, 3531-3534.	1.9	7
155	Functionalizing self-assembled GaN quantum dot superlattices by Eu-implantation. Journal of Applied Physics, 2010, 108, 084306.	1.1	16
156	Hydrogen in InN: A ubiquitous phenomenon in molecular beam epitaxy grown material. Applied Physics Letters, 2010, 96, .	1.5	36
157	Lattice site location of optical centers in GaN:Eu light emitting diode material grown by organometallic vapor phase epitaxy. Applied Physics Letters, 2010, 97, 111911.	1.5	29
158	Optical doping and damage formation in AlN by Eu implantation. Journal of Applied Physics, 2010, 107, 023525.	1.1	38
159	Indium kinetics during the plasma-assisted molecular beam epitaxy of semipolar (11â^'22) InGaN layers. Applied Physics Letters, 2010, 96, 181907.	1.5	27
160	Optical and Structural Properties of an Eu Implanted Gallium Nitride Quantum Dots/Aluminium Nitride Superlattice. Journal of Nanoscience and Nanotechnology, 2010, 10, 2473-2478.	0.9	3
161	Depth-resolved analysis of spontaneous phase separation in the growth of lattice-matched AlInN. Journal Physics D: Applied Physics, 2010, 43, 055406.	1.3	33
162	Identification of the prime optical center in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>GaN</mml:mtext><mml:mo>:</mml:mo><mml:msup><mml:mrow><mml:mtext>Eu</mml:m Physical Review B, 2010, 81, .	1.1	90

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163	RE Implantation and Annealing of III-Nitrides. Topics in Applied Physics, 2010, , 25-54.	0.4	7
164	An In-defect complex as a possible explanation for high luminous efficacy of InGaN and AlInN based devices. , 2010, , 187-191.		0
165	Luminescence of Eu ions in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Al</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msu the entire alloy composition range. Physical Review B, 2009, 80, .	1.1	31
166	Investigation of different mechanisms of GaN growth induced on AlN and GaN nucleation layers. Journal of Applied Physics, 2009, 105, .	1.1	15
167	Optical and structural properties of Eu-implanted InxAl1â^'xN. Journal of Applied Physics, 2009, 106, .	1.1	3
168	Structural and optical characterization of Eu-implanted GaN. Journal Physics D: Applied Physics, 2009, 42, 165103.	1.3	48
169	Optically active centers in Eu implanted, Euin situdoped GaN, and Eu doped GaN quantum dots. Journal of Applied Physics, 2009, 105, 043104.	1.1	38
170	Breakdown of anomalous channeling with ion energy for accurate strain determination in GaN-based heterostructures. Applied Physics Letters, 2009, 95, 051921.	1.5	5
171	Influence of steering effects on strain detection in AlGaInN/GaN heterostructures by ion channelling. Journal Physics D: Applied Physics, 2009, 42, 065420.	1.3	6
172	Europium doping of zincblende GaN by ion implantation. Journal of Applied Physics, 2009, 105, 113507.	1.1	8
173	Lattice location and annealing studies of Hf implanted CaF2. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 1472-1475.	0.6	1
174	Radiation damage in ZnO ion implanted at 15K. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2708-2711.	0.6	64
175	Stable In-defect complexes in GaN and AlN. Physica B: Condensed Matter, 2009, 404, 4866-4869.	1.3	4
176	Alloy and lattice disorder in Hf implanted <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0020.gif" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Al</mml:mi></mml:mrow><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:mn mathvariant="normal">N</mml:mi><mml:mspace width="0.33em" /><mml:mo		

#	Article	IF	Citations
181	A comparative investigation of the damage buildâ€up in GaN and Si during rare earth ion implantation. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 68-70.	0.8	3
182	Rare earth doping of IIIâ€nitride alloys by ion implantation. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 34-37.	0.8	8
183	Temperature dependent site change of In in AlN and GaN. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 93-95.	0.8	4
184	Luminescence spectroscopy of Euâ€implanted zincblende GaN. Physica Status Solidi (B): Basic Research, 2008, 245, 170-173.	0.7	3
185	Relaxation of compressively strained AlInN on GaN. Journal of Crystal Growth, 2008, 310, 4058-4064.	0.7	50
186	A comparative structural investigation of GaN implanted with rare earth ions at room temperature and 500Â°C. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 146, 204-207.	1.7	9
187	Visible and infrared luminescence study of Er doped Î²-Ga₂O₃and Er₃Ga₅O₁₂. Journal Physics D: Applied Physics, 2008, 41, 065406.	1.3	29
188	Two colour experiments in Eu3+ implanted GaN. Journal of Alloys and Compounds, 2008, 451, 140-142.	2.8	6
189	Optical energies of AlInN epilayers. Journal of Applied Physics, 2008, 103, .	1.1	58
190	Temperature dependence of the electric field gradient in GaN measured with the PAC-probe 181Hf. , 2008, , 217-223.		0
191	Metal-organic vapor phase epitaxy and properties of AlInN in the whole compositional range. Applied Physics Letters, 2007, 90, 022105.	1.5	119
192	Structural and optical characterisation of Eu implanted AlxGa1â^'xN. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 307-310.	0.6	10
193	Implantation of nanoporous GaN with Eu ions. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 328-331.	0.6	2
194	Spectroscopic investigation of implanted epilayers of Tm3+:GaN. Journal of Luminescence, 2007, 122-123, 131-133.	1.5	3
195	Temperature dependence of the electric field gradient in GaN measured with the PAC-probe 181Hf. Hyperfine Interactions, 2007, 177, 89-95.	0.2	5
196	Anomalous Ion Channeling inAlInN/GaNBilayers: Determination of the Strain State. Physical Review Letters, 2006, 97, 085501.	2.9	125
197	Depth profiling of ion-implanted AlInN using time-of-flight secondary ion mass spectrometry and cathodoluminescence. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1927-1930.	0.8	8
198	Behaviour of the AlN cap during GaN implantation of rare earths and annealing. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 2172-2175.	0.8	8

#	Article	IF	Citations
199	Structure and role of ultrathin AlN layers for improving optical activation of rare earth implanted GaN. Physica Status Solidi (B): Basic Research, 2006, 243, 1541-1544.	0.7	1
200	Optical doping of AlN by rare earth implantation. Nuclear Instruments & Methods in Physics Research B, 2006, 242, 307-310.	0.6	23
201	Defect production in neutron irradiated GaN. Nuclear Instruments & Methods in Physics Research B, 2006, 249, 358-361.	0.6	27
202	TEM investigation of Tm implanted GaN, the influence of high temperature annealing. Optical Materials, 2006, 28, 738-741.	1.7	16
203	High temperature annealing of rare earth implanted GaN films: Structural and optical properties. Optical Materials, 2006, 28, 750-758.	1.7	47
204	Lattice order in thulium-doped GaN epilayers: In situ doping versus ion implantation. Optical Materials, 2006, 28, 771-774.	1.7	6
205	Effect of annealing temperature on luminescence in Eu implanted GaN. Optical Materials, 2006, 28, 780-784.	1.7	29
206	The structure of crystallographic damage in GaN formed during rare earth ion implantation with and without an ultrathin AlN capping layer. Superlattices and Microstructures, 2006, 40, 300-305.	1.4	4
207	Blue cathodoluminescence from thulium implanted AlxGa1â^'xN and InxAl1â^'xN. Superlattices and Microstructures, 2006, 40, 445-451.	1.4	10
208	Optical properties of high-temperature annealed Eu-implanted GaN. Optical Materials, 2006, 28, 797-801.	1.7	8
209	UV-Raman scattering study of lattice recovery by thermal annealing of Eu+ -implanted GaN layers. Superlattices and Microstructures, 2006, 40, 440-444.	1.4	1
210	Optical and structural studies in Eu-implanted AlN films. Superlattices and Microstructures, 2006, 40, 537-544.	1.4	14
211	Cathodoluminescence of rare earth implanted AlInN. Applied Physics Letters, 2006, 89, 131912.	1.5	15
212	Failure mechanism of AlN nanocaps used to protect rare earth-implanted GaN during high temperature annealing. Applied Physics Letters, 2006, 88, 031902.	1.5	18
213	Transmission electron microscopy investigation of the structural damage formed in GaN by medium range energy rare earth ion implantation. Journal of Applied Physics, 2006, 100, 073520.	1.1	58
214	Rare Earth Ion Implantation in GaN: Damage Formation and Recovery. Acta Physica Polonica A, 2006, 110, 125-137.	0.2	3
215	Characterization of the blue emission of Tm/Er co-implanted GaN. Materials Research Society Symposia Proceedings, 2005, 892, 544.	0.1	3
216	The atomic structure of defects formed during doping of GaN with rare earth ions. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 1081-1084.	0.8	5

#	Article	IF	Citations
217	Influence of the Annealing Ambient on Structural and Optical Properties of Rare Earth Implanted GaN. Materials Research Society Symposia Proceedings, 2005, 892, 556.	0.1	2
218	Damage formation and annealing at low temperatures in ion implanted ZnO. Applied Physics Letters, 2005, 87, 191904.	1.5	100
219	Selectively excited photoluminescence from Eu-implanted GaN. Applied Physics Letters, 2005, 87, 112107.	1.5	85
220	A microspectroscopic study of cap damage in annealed RE-doped AlN-capped GaN. Materials Research Society Symposia Proceedings, 2005, 892, 568.	0.1	0
221	Anomalous Temperature Dependence of the EFG in AlN Measured with the PAC-Probes 181Hf and 111In. , 2005, , 273-279.		0
222	High-temperature annealing and optical activation of Eu-implanted GaN. Applied Physics Letters, 2004, 85, 2712-2714.	1.5	67
223	Amorphisation of GaN during processing with rare earth ion beams. Superlattices and Microstructures, 2004, 36, 737-745.	1.4	27
224	Anomalous Temperature Dependence of the EFG in AlN Measured with the PAC-Probes 181Hf and 111In. Hyperfine Interactions, 2004, 158, 273-279.	0.2	5
225	Characterisation of defects in rare earth implanted GaN by deep level transient spectroscopy. Superlattices and Microstructures, 2004, 36, 713-719.	1.4	6
226	Extended X-ray absorption fine structure studies of thulium doped GaN epilayers. Superlattices and Microstructures, 2004, 36, 729-736.	1.4	9
227	Lattice location and optical activation of rare earth implanted GaN. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 105, 132-140.	1.7	44
228	Implantation and annealing studies of Tm-implanted GaN. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 105, 97-100.	1.7	13
229	Defect Recovery in AlN and InN after Heavy Ion Implantation. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 413-416.	0.8	6
230	Processing of rare earth doped GaN with ion beams. Materials Research Society Symposia Proceedings, 2003, 798, 569.	0.1	5
231	High Temperature Implantation of Tm in GaN. Materials Research Society Symposia Proceedings, 2003, 798, 548.	0.1	6
232	Electron micro-probe analysis and cathodoluminescence spectroscopy of rare earth - implanted GaN. Materials Research Society Symposia Proceedings, 2003, 798, 466.	0.1	1
233	Reversible changes in the lattice site structure for In implanted into GaN. Applied Physics Letters, 2002, 80, 4531-4533.	1.5	21
234	Gallium nitride epitaxy on (0001) sapphire. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 885-912.	0.7	42

#	Article	IF	Citations
235	Gallium nitride epitaxy on (0001) sapphire. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 885-912.	0.7	7
236	Photoluminescence and lattice location of Eu and Pr implanted GaN samples. Physica B: Condensed Matter, 2001, 308-310, 22-25.	1.3	91
237	Annealing Behaviour of GaN after Implantation with Hafnium and Indium. Physica Status Solidi (B): Basic Research, 2001, 228, 331-335.	0.7	10
238	OPTICAL DOPING OF NITRIDES BY ION IMPLANTATION. Modern Physics Letters B, 2001, 15, 1281-1287.	1.0	33
239	Extended x-ray absorption fine structure and photoluminescence study of Er-implanted GaN films. Semiconductor Science and Technology, 2001, 16, L77-L80.	1.0	2
240	Origins of threading dislocations in GaN epitaxial layers grown on sapphire by metalorganic chemical vapor deposition. Applied Physics Letters, 2001, 78, 1544-1546.	1.5	87
241	Dopants in Semiconductors Studied by Perturbed Angular Correlation. Acta Physica Polonica A, 2001, 100, 585-602.	0.2	1
242	RBS/Channeling study of Er doped GaN films grown by MBE on Si substrates. Nuclear Instruments & Methods in Physics Research B, 2000, 161-163, 946-951.	0.6	22
243	Comparative study of GaN and AlN nucleation layers and their role in growth of GaN on sapphire by metalorganic chemical vapor deposition. Applied Physics Letters, 2000, 77, 3391-3393.	1.5	95
244	Defect Trapping and Annealing for Transition Metal Implants in Group III Nitrides. MRS Internet Journal of Nitride Semiconductor Research, 2000, 5, 1.	1.0	9
245	Implanted Impurities in Wide Band Gap Semiconductors. Defect and Diffusion Forum, 0, 311, 167-179.	0.4	8