Ferdinand Scholz

List of Publications by Year
in descending order

80	1,362	361413	377865
papers	citations	20 h-index	34 g-index

83	83	83	1019
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Semipolar GaN grown on foreign substrates: a review. Semiconductor Science and Technology, 2012, 27, 024002.	2.0	142
2	Process optimization for the effective reduction of threading dislocations in MOVPE grown GaN using in situ deposited masks. Journal of Crystal Growth, 2008, 310, 4867-4870.	1.5	67
3	Bright semipolar GaInNâˆ•GaN blue light emitting diode on side facets of selectively grown GaN stripes. Applied Physics Letters, 2006, 89, 041121.	3.3	65
4	GaInN quantum wells grown on facets of selectively grown GaN stripes. Applied Physics Letters, 2005, 87, 182111.	3.3	62
5	Threeâ€dimensional GaN for semipolar light emitters. Physica Status Solidi (B): Basic Research, 2011, 248, 549-560.	1.5	62
6	Piezoelectric fields in GaInNâˆ•GaN quantum wells on different crystal facets. Applied Physics Letters, 2006, 89, 242112.	3.3	56
7	Optimization of nucleation and buffer layer growth for improved GaN quality. Journal of Crystal Growth, 2007, 308, 30-36.	1.5	51
8	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>I</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml plane stacking fault in GaN: Origin of the 3.32 eV luminescence band. Physical Review B, 2011, 83, .	3.2	46
9	Low pressure MOVPE of GaN and heterostructures. Journal of Crystal Growth, 1997, 170, 321-324.	1.5	38
10	Diffusion length of photoexcited carriers in GaN. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 50, 289-295.	3.5	37
11	Planar semipolar (101Â¯1) GaN on (112Â¯3) sapphire. Applied Physics Letters, 2010, 96, .	3.3	35
12	Growth and coalescence behavior of semipolar $(11{ar {2}}2)$ GaN on preâ€structured râ€plane sapphire substrates. Physica Status Solidi (B): Basic Research, 2011, 248, 588-593.	1.5	34
13	Semipolar GaInN/GaN lightâ€emitting diodes grown on honeycomb patterned substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2140-2143.	0.8	27
14	Growth and doping of semipolar GaN grown on patterned sapphire substrates. Journal of Crystal Growth, 2014, 405, 97-101.	1.5	27
15	An Oxygen Doped Nucleation Layer for the Growth of High Optical Quality GaN on Sapphire. Physica Status Solidi A, 2001, 188, 629-633.	1.7	26
16	Fabrication of freestanding 2â€³â€GaN wafers by hydride vapour phase epitaxy and selfâ€separation during cooldown. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1287-1291.	1.8	25
17	Semipolar GaN/GaInN LEDs with more than 1mW optical output power. Journal of Crystal Growth, 2007, 298, 706-709.	1.5	23
18	GaN-Based Light-Emitting Diodes on Selectively Grown Semipolar Crystal Facets. MRS Bulletin, 2009, 34, 328-333.	3.5	22

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19	GaInNâ€based LED structures on selectively grown semiâ€polar crystal facets. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1407-1413.	1.8	22
20	High resolution synchrotron X-ray studies of phase separation phenomena and the scaling law for the threading dislocation densities reduction in high quality AlGaN heterostructure. Journal of Crystal Growth, 2013, 370, 51-56.	1.5	22
21	Time- and locally resolved photoluminescence of semipolar GaInNâ•GaN facet light emitting diodes. Applied Physics Letters, 2007, 90, 171123.	3.3	20
22	Studies about wafer bow of freestanding GaN substrates grown by hydride vapor phase epitaxy. Journal of Crystal Growth, 2012, 352, 235-238.	1.5	20
23	Improvements of MOVPE grown (11$ ar 2 $2) oriented GaN on pre-structured sapphire substrates using a SiNxinterlayer and HVPE overgrowth. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 525-529.	0.8	20
24	Spectroscopic study of semipolar (112Â¯2)-HVPE GaN exhibiting high oxygen incorporation. Journal of Applied Physics, 2014, 116, .	2.5	18
25	High Bandwidth Freestanding Semipolar (11â€“22) InGaN/GaN Light-Emitting Diodes. IEEE Photonics Journal, 2016, 8, 1-8.	2.0	18
26	Semipolar (112) InGaN lightâ€emitting diodes grown on chemicallyâ€“mechanically polished GaN templates. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2196-2200.	1.8	17
27	GaInN Quantum Wells as Optochemical Transducers for Chemical Sensors and Biosensors. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 15-23.	2.9	16
28	Growth and coalescence studies of oriented GaN on preâ€structured sapphire substrates using marker layers. Physica Status Solidi (B): Basic Research, 2016, 253, 46-53.	1.5	15
29	Metalorganic vapour phase epitaxy of GaN and GaInN/GaN heterostructures and quantum wells. Progress in Crystal Growth and Characterization of Materials, 1997, 35, 243-262.	4.0	14
30	Properties of Blue and Green InGaN/GaN Quantum Well Emission on Structured Semipolar Surfaces. Japanese Journal of Applied Physics, 2009, 48, 060201.	1.5	14
31	Cathodoluminescence of GaInN quantum wells grown on nonpolar a plane GaN: Intense emission from pit facets. Applied Physics Letters, 2010, 97, 101904.	3.3	14
32	Determination of axial and lateral exciton diffusion length in GaN by electron energy dependent cathodoluminescence. Journal of Applied Physics, 2016, 120, .	2.5	14
33	Study of threading dislocation density reduction in AlGaN epilayers by Monte Carlo simulation of high-resolution reciprocal-space maps of a two-layer system. Journal of Applied Crystallography, 2013, 46, 120-127.	4.5	13
34	Three-dimensional reciprocal space mapping of diffuse scattering for the study of stacking faults in semipolar (f 11{overline 2}2) GaN layers grown from the sidewall of anr-patterned sapphire substrate. Journal of Applied Crystallography, 2013, 46, 1425-1433.	4.5	11
35	Intrafacet migration effects in InGaNâ•GaN structures grown on triangular GaN ridges studied by submicron beam x-ray diffraction. Applied Physics Letters, 2008, 92, 123106.	3.3	10
36	Influence of slight misorientations of r -plane sapphire substrates on the growth of nonpolar a -plane GaN layers via HVPE. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2069-2072.	0.8	10

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37	(20$ ar 2 $1) MOVPE and HVPE GaN grown on 2â€³ patterned sapphire substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 537-540.	0.8	10
38	Effects of miscut of prestructured sapphire substrates and MOVPE growth conditions on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0007.gif" overflow="scroll"><mml:mo>(</mml:mo><mml:mn>11</mml:mn><mml:mover) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 697 Td (accent="oriented GaN. Journal of Crystal Growth, 2015, 414, 100-104.	1.5	10
39	Internal quantum efficiency and carrier injection efficiency ofc-plane, {101â€¾1} and {112â€¾2} InGaN/GaN-based light-emitting diodes. Physica Status Solidi (B): Basic Research, 2016, 253, 174-179.	1.5	10
40	HVPE growth of high quality GaN layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1471-1474.	0.8	9
41	Investigations on local Ga and In incorporation of GaInN quantum wells on facets of selectively grown GaN stripes. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1587-1590.	0.8	9
42	Three-dimensional reciprocal space mapping with a two-dimensional detector as a low-latency tool for investigating the influence of growth parameters on defects in semipolar GaN. Journal of Applied Crystallography, 2015, 48, 1000-1010.	4.5	8
43	Development of semipolar (11-22) LEDs on GaN templates. Proceedings of SPIE, 2016, , .	0.8	8
44	Bluishâ€green semipolar GaInN/GaN light emitting diodes on {1$ ar 1 $01} GaN side facets. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2059-2062.	0.8	7
45	Semipolar GaInN quantum well structures on large area substrates. Physica Status Solidi (B): Basic Research, 2012, 249, 464-467.	1.5	7
46	Blue to true green LEDs with semipolar quantum wells based on GaN nanostripes. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 376-380.	0.8	7
47	EBIC investigations on polar and semipolar InGaN LED structures. Physica Status Solidi (B): Basic Research, 2016, 253, 126-132.	1.5	7
48	Semipolar GaNâ€based heterostructures on foreign substrates. Physica Status Solidi (B): Basic Research, 2016, 253, 13-22.	1.5	7
49	High quantum efficiency of semipolar GaInN/GaN quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2089-2091.	0.8	6
50	GaN based LEDs with semipolar QWs employing embedded sub-micrometer sized selectively grown 3D structures. Journal of Crystal Growth, 2013, 370, 101-104.	1.5	6
51	Studies on Defect Reduction in AlGaN Heterostructures by Integrating an In-situ SiN Interlayer. Japanese Journal of Applied Physics, 2013, 52, 08JJ07.	1.5	6
52	The influence of prestrained metalorganic vapor phase epitaxial gallium-nitride templates on hydride vapor phase epitaxial growth. Applied Physics Letters, 2014, 105, .	3.3	6
53	GaN tubes with coaxial nonâ€•and semipolar GaInN quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 648-651.	0.8	6
54	Mg doping of 3D semipolar InGaN/GaN-based light emitting diodes. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2645-2649.	1.8	6

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55	Functionalized GaN/GaInN heterostructures for hydrogen sulfide sensing. Japanese Journal of Applied Physics, 2019, 58, SC1028.	1.5	6
56	Bio sensing with InGaN-heterostructures using a compact spectrometer approach. Sensors and Actuators B: Chemical, 2020, 305, 127189.	7.8	6
57	Luminescence properties of epitaxially grown GaN and InGaN layers around ZnO nanopillars. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1582-1585.	1.8	5
58	Basal plane stacking faults in semipolar AlGaN: Hints to Al redistribution. Physica Status Solidi (B): Basic Research, 2014, 251, 2321-2325.	1.5	5
59	Optical properties of defects in nitride semiconductors. Journal of Materials Research, 2015, 30, 2977-2990.	2.6	5
60	Stacking fault emission in GaN: Influence of n-type doping. Journal of Applied Physics, 2016, 119, .	2.5	5
61	Embedded GaN nanostripes on câ€sapphire for DFB lasers with semipolar quantum wells. Physica Status Solidi (B): Basic Research, 2016, 253, 180-185.	1.5	5
62	Efficiency studies on semipolar GaInN-GaN quantum well structures. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 3117-3121.	1.8	5
63	Doping behavior of GaN grown on patterned sapphire substrates. Physica Status Solidi (B): Basic Research, 2016, 253, 164-168.	1.5	5
64	Three-dimensional cathodoluminescence characterization of a semipolar GaInN based LED sample. Journal of Applied Physics, 2017, 121, .	2.5	5
65	Investigation of Boron Containing AlN and AlGaN Layers Grown by MOVPE. Physica Status Solidi (B): Basic Research, 2018, 255, 1700510.	1.5	5
66	Carrier capture in InGaN quantum wells and hot carrier effects in GaN. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 59, 323-329.	3.5	4
67	Formation of I2-type basal-plane stacking faults in In0.25Ga0.75N multiple quantum wells grown on a (101Â¯1) semipolar GaN template. Applied Physics Letters, 2017, 110, .	3.3	4
68	Ga(In)N Photonic Crystal Light Emitters with Semipolar Quantum Wells. Japanese Journal of Applied Physics, 2013, 52, 062101.	1.5	3
69	INGAN/GAN based semipolar green converters. Journal of Crystal Growth, 2013, 370, 120-123.	1.5	3
70	Coaxial InGaN epitaxy around GaN micro-tubes: Tracing the signs. Journal of Crystal Growth, 2013, 370, 319-322.	1.5	3
71	LEDs on HVPE grown GaN substrates: Influence of macroscopic surface features. AIP Advances, 2014, 4, .	1.3	3
72	Impact of Surface Chemistry and Doping Concentrations on Biofunctionalization of GaN/Gaâ€'Inâ€'N Quantum Wells. Sensors, 2020, 20, 4179.	3.8	3

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73	X-ray diffraction studies of selective area grown InGaN/GaN multiple quantum wells on multi-facet GaN ridges. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1655-1658.	0.8	2
74	MOVPE of Groupâ€III Heterostructures for Optoelectronic Applications. Crystal Research and Technology, 2020, 55, 1900027.	1.3	2
75	Optical Properties of ZnO/GaN/InGaN Coreâ€“Shell Nanorods. Japanese Journal of Applied Physics, 2013, 52, 075201.	1.5	1
76	Optical absorption of polar and semipolar InGaN/GaN quantum wells for blue to green converter structures. Journal of Applied Physics, 2014, 116, 183507.	2.5	1
77	Direct microscopic correlation of real structure and optical properties of semipolar GaN based on preâ€patterned râ€plane sapphire. Physica Status Solidi (B): Basic Research, 2016, 253, 54-60.	1.5	1
78	Optimization of (In)GaN Heterostructures for Sensing Applications. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000517.	1.8	1
79	Combined depth-resolved cathodoluminescence spectroscopy and transmission electron microscopy on Al(Ga)N multi quantum well structures. Nano Express, 2021, 2, 014002.	2.4	1
80	Composition analysis of coaxially grown InGaN multi quantum wells using scanning transmission electron microscopy. Journal of Applied Physics, 2016, 119, 175701.	2.5	0