Boleslaw Åucznik

List of Publications by Year
in descending order

62 papers	1,473 citations	279798 23 h-index	330143 37 g-index
62 all docs	62 docs citations	62 times ranked	1249 citing authors

#	Article	IF	Citations
1	Challenges and future perspectives in HVPE-GaN growth on ammonothermal GaN seeds. Semiconductor Science and Technology, 2016, 31, 093002.	2.0	116
2	Thermal properties of indium nitride. Journal of Physics and Chemistry of Solids, 1998, 59, 289-295.	4.0	110
3	Effect of growth polarity on vacancy defect and impurity incorporation in dislocation-free GaN. Applied Physics Letters, 2005, 86, 031915.	3.3	96
4	The influence of Mg doping on the formation of Ga vacancies and negative ions in GaN bulk crystals. Applied Physics Letters, 1999, 75, 2441-2443.	3.3	77
5	Growth of bulk GaN crystals. Journal of Applied Physics, 2020, 128, .	2.5	76
6	Nonradiative recombination at threading dislocations in n-type GaN: Studied by cathodoluminescence and defect selective etching. Applied Physics Letters, 2008, 92, .	3.3	74
7	Highly resistive C-doped hydride vapor phase epitaxy-GaN grown on ammonothermally crystallized GaN seeds. Applied Physics Express, 2017, 10, 011003.	2.4	59
8	Preparation of Free-Standing GaN Substrates from Thick GaN Layers Crystallized by Hydride Vapor Phase Epitaxy on Ammonothermally Grown GaN Seeds. Applied Physics Express, 2013, 6, 075504.	2.4	51
9	HVPE-GaN grown on MOCVD-GaN/sapphire template and ammonothermal GaN seeds: Comparison of structural, optical, and electrical properties. Journal of Crystal Growth, 2014, 394, 55-60.	1.5	44
10	High Pressure Processing of Ion Implanted GaN. Electronics (Switzerland), 2020, 9, 1380.	3.1	36
11	GaN crystallization by the high-pressure solution growth method on HVPE bulk seed. Journal of Crystal Growth, 2008, 310, 3924-3933.	1.5	35
12	Properties of metal-insulator transition and electron spin relaxation in GaN:Si. Physical Review B, 2011, 83, .	3.2	34
13	The influence of free-carrier concentration on the PEC etching of GaN: A calibration with Raman spectroscopy. Journal of Crystal Growth, 2007, 307, 298-301.	1.5	33
14	Multi feed seed (MFS) high pressure crystallization of 1â€“2in GaN. Journal of Crystal Growth, 2012, 350, 5-10.	1.5	31
15	Homoepitaxial HVPE-GaN growth on non-polar and semi-polar seeds. Journal of Crystal Growth, 2014, 403, 48-54.	1.5	31
16	High-nitrogen-pressure growth of GaN single crystals: doping and physical properties. Journal of Physics Condensed Matter, 2001, 13, 8881-8890.	1.8	29
17	Homoepitaxial growth of HVPE-GaN doped with Si. Journal of Crystal Growth, 2016, 456, 91-96.	1.5	29
18	Doping in bulk HVPE-GaN grown on native seeds â€“ highly conductive and semi-insulating crystals. Journal of Crystal Growth, 2018, 499, 1-7.	1.5	28

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19	Defects in GaN single crystals and homoepitaxial structures. Journal of Crystal Growth, 2005, 281, 135-142.	1.5	26
20	Examination of defects and the seed's critical thickness in HVPEâ€GaN growth on ammonothermal GaN seed. Physica Status Solidi (B): Basic Research, 2015, 252, 1172-1179.	1.5	26
21	Crystal growth of HVPE-GaN doped with germanium. Journal of Crystal Growth, 2017, 480, 102-107.	1.5	26
22	Thick GaN layers grown by hydride vapor-phase epitaxy: hetero- versus homo-epitaxy. Journal of Crystal Growth, 2003, 255, 241-249.	1.5	24
23	Observation of Ga vacancies and negative ions in undoped and Mg-doped GaN bulk crystals. Physica B: Condensed Matter, 1999, 273-274, 33-38.	2.7	23
24	Iron and manganese as dopants used in the crystallization of highly resistive HVPE-GaN on native seeds. Japanese Journal of Applied Physics, 2019, 58, SC1047.	1.5	23
25	Polarity dependent properties of GaN layers grown by hydride vapor phase epitaxy on GaN bulk crystals. Physica Status Solidi (B): Basic Research, 2003, 240, 289-292.	1.5	22
26	Lattice parameters of GaN single crystals, homoepitaxial layers and heteroepitaxial layers on sapphire. Journal of Alloys and Compounds, 1999, 286, 271-275.	5.5	21
27	High pressureâ€"high temperature seeded growth of GaN on 1 in sapphire/GaN templates: Analysis of convective transport. Journal of Crystal Growth, 2007, 307, 259-267.	1.5	21
28	Preparation of free-standing GaN substrates from GaN layers crystallized by hydride vapor phase epitaxy on ammonothermal GaN seeds. Japanese Journal of Applied Physics, 2014, 53, 05FA04.	1.5	21
29	Examination of growth rate during hydride vapor phase epitaxy of GaN on ammonothermal GaN seeds. Journal of Crystal Growth, 2014, 407, 52-57.	1.5	21
30	Carrier recombination and diffusion in GaN revealed by transient luminescence under one-photon and two-photon excitations. Applied Physics Letters, 2006, 89, 172119.	3.3	18
31	Influence of edge-grown HVPE GaN on the structural quality of c-plane oriented HVPE-GaN grown on ammonothermal GaN substrates. Journal of Crystal Growth, 2016, 456, 80-85.	1.5	18
32	Structural Analysis of Low Defect Ammonothermally Grown GaN Wafers by Borrmann Effect X-ray Topography. Materials, 2021, 14, 5472.	2.9	17
33	HVPE-GaN growth on misoriented ammonothermal GaN seeds. Journal of Crystal Growth, 2014, 403, 32-37.	1.5	15
34	Etching, Raman and PL study of thick HVPE-grown GaN. Materials Science in Semiconductor Processing, 2006, 9, 175-179.	4.0	14
35	Crystallization of semi-insulating HVPE-GaN with solid iron as a source of dopants. Journal of Crystal Growth, 2017, 475, 121-126.	1.5	13
36	Bulk GaN crystals and wafers grown by HVPE without intentional doping. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S297-S300.	0.8	11

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37	Electron spin resonance and Rashba field in GaN-based materials. Physica B: Condensed Matter, 2011, 406, 2548-2554.	2.7	11
38	C-plane bowing in free standing GaN crystals grown by HVPE on GaN-sapphire substrates with photolithographically patterned Ti masks. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2117-2119.	0.8	10
39	HVPE-GaN growth on ammonothermal GaN crystals. Proceedings of SPIE, 2013, , .	0.8	10
40	HVPE-GaN growth on GaN-based Advanced Substrates by Smart Cutâ„¢. Journal of Crystal Growth, 2016, 456, 73-79.	1.5	9
41	Growth of HVPE-GaN on native seeds â€" numerical simulation based on experimental results. Journal of Crystal Growth, 2016, 456, 86-90.	1.5	9
42	Carbon and Manganese in Semi-Insulating Bulk GaN Crystals. Materials, 2022, 15, 2379.	2.9	9
43	Homoepitaxial growth by halide vapor phase epitaxy of semi-polar GaN on ammonothermal seeds. Japanese Journal of Applied Physics, 2019, 58, SC1030.	1.5	8
44	Crystallization of GaN by HVPE on pressure grown seeds. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1654-1657.	1.8	7
45	Electrical characterization of HVPE GaN containing different concentrations of carbon dopants. Semiconductor Science and Technology, 2018, 33, 125024.	2.0	7
46	Doping-Induced Contrast in the Refractive Index for GaInN/GaN Structures at Telecommunication Wavelengths. Applied Physics Express, 2009, 2, 111001.	2.4	6
47	Characterization of the Nonpolar GaN Substrate Obtained by Multistep Regrowth by Hydride Vapor Phase Epitaxy. Applied Physics Express, 2012, 5, 011001.	2.4	6
48	High nitrogen pressure solution growth of GaN in multi feedâ€seed configuration. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 453-456.	0.8	6
49	Role and influence of impurities on GaN crystal grown from liquid solution under high nitrogen pressure in multi-feed-seed configuration. Proceedings of SPIE, 2013, , .	0.8	6
50	Homoepitaxial HVPE GaN growth on non- and semi-polar seeds. Proceedings of SPIE, 2015, , .	0.8	4
51	DTA determination of the high-pressure-high-temperature phase diagram of CdSe. Semiconductor Science and Technology, 1992, 7, 994-998.	2.0	3
52	(Invited) Growth and Characterization of Bulk HVPE-GaN â€" Pathway to Highly Conductive and Semi-Insulating GaN Substrates. ECS Transactions, 2017, 80, 991-1003.	0.5	3
53	Carrier recombination under one-photon and two-photon excitation in GaN epilayers. Micron, 2009, 40, 118-121.	2.2	2
54	Measurements of strain in AlGaN/GaN HEMT structures grown by plasma assisted molecular beam epitaxy. Journal of Crystal Growth, 2014, 401, 355-358.	1.5	2

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55	GaN Single Crystals Grown by High Pressure Solution Method.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 760-762.	0.0	2
56	Liquid phase epitaxy of GaN on MOCVD GaN/sapphire and HVPE freeâ€standing substrates under high nitrogen pressure. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1539-1542.	0.8	1
57	Nonpolar GaN Quasi-Wafers Sliced from Bulk GaN Crystals Grown by High-Pressure Solution and HVPE Methods. , 0, , 53-71.		1
58	Structural and Chemical Characterization of Al(Ga)N/GaN Quantum Well Structures Grown by Plasma Assisted Molecular Beam Epitaxy. Solid State Phenomena, 2012, 186, 70-73.	0.3	1
59	Indentation Response of Calcium Aluminoborosilicate Glasses Subjected to Humid Aging and Hot Compression. Materials, 2021, 14, 3450.	2.9	1
60	High pressure, high temperature them determination of triple point in CdSe. High Pressure Research, 1992, 10, 420-423.	1.2	0
61	Adsorption and dissolution of nitrogen in lithiumâ€"QM DFT investigation. Journal of Crystal Growth, 2007, 304, 299-309.	1.5	0
62	HVPE-GaN growth on GaN-based advanced substrates by Smart CutTM. , 2016, , .		0