Andrey S Zubrilov

List of Publications by Year
in descending order

60 papers	763 citations	471061 17 h-index	552369 26 g-index
61 all docs	61 docs citations	61 times ranked	690 citing authors

#	Article	IF	Citations
1	Spontaneous and stimulated emission from photopumped GaN grown on SiC. Applied Physics Letters, 1995, 67, 533-535.	1.5	98
2	Defect-related tunneling mechanism of efficiency droop in III-nitride light-emitting diodes. Applied Physics Letters, 2010, 96, 133502.	1.5	84
3	Insulating GaN:Zn layers grown by hydride vapor phase epitaxy on SiC substrates. Applied Physics Letters, 1999, 75, 3138-3140.	1.5	62
4	Strain relaxation in GaN layers grown on porous GaN sublayers. MRS Internet Journal of Nitride Semiconductor Research, 1999, 4, 1.	1.0	48
5	Deep centers and electroluminescence in 4Hî—¸SiC diodes with a p-type base region. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1995, 29, 181-184.	1.7	36
6	Growth of AlGaN on Si(111) by gas source molecular beam epitaxy. Applied Physics Letters, 2000, 76, 3028-3030.	1.5	34
7	Nature of V-Shaped Defects in GaN. Japanese Journal of Applied Physics, 2013, 52, 08JE14.	0.8	25
8	Laser slicing: A thin film lift-off method for GaN-on-GaN technology. Results in Physics, 2019, 13, 102233.	2.0	23
9	White electroluminescence from ZnO/GaN structures. Semiconductors, 2007, 41, 564-569.	0.2	22
10	Mechanism of the GaN LED efficiency falloff with increasing current. Semiconductors, 2010, 44, 794-800.	0.2	22
11	Gas source molecular beam epitaxy of high quality Al[sub x]Ga[sub 1â^'x]N (0â‰¤xâ‰¤1) on Si(111). Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 1409.	1.6	21
12	ZnO/GaN heterostructure for LED applications. Journal of Modern Optics, 2009, 56, 653-660.	0.6	21
13	Optical confinement and threshold currents in IIIâ€“V nitride heterostructures: Simulation. Journal of Applied Physics, 1997, 81, 2952-2956.	1.1	20
14	High-dose Al-implanted 4H-SiC p+-n-n+ junctions. Applied Physics Letters, 2000, 77, 3051-3053.	1.5	20
15	Optical properties of GaN grown on Si (111) by gas source molecular beam epitaxy with ammonia. Journal of Applied Physics, 2002, 91, 1209-1212.	1.1	18
16	Two modes of HVPE growth of GaN and related macrodefects. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 468-471.	0.8	18
17	AlGaN pn junctions. Applied Physics Letters, 1995, 67, 115-117.	1.5	17
18	Properties of Si-Doped GaN Layers Grown by HVPE. Physica Status Solidi A, 2001, 188, 433-437.	1.7	15

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19	Optical properties of gallium nitride bulk crystals grown by chloride vapor phase epitaxy. Semiconductors, 1999, 33, 1067-1071.	0.2	13
20	AlN/GaN and AlGaN/GaN Heterostructures Grown by HVPE on SiC Substrates. Materials Research Society Symposia Proceedings, 1997, 482, 329.	0.1	12
21	Structural, electrical, and optical properties of low-doped 4Hâ€“SiC chemical vapor deposited epitaxial layers. Journal of Applied Physics, 2001, 90, 5402-5409.	1.1	11
22	Effect of localized tail states in InGaN on the efficiency droop in GaN light-emitting diodes with increasing current density. Semiconductors, 2012, 46, 1032-1039.	0.2	10
23	Optical Properties of Nitride-based Structures Grown on 6H-SiC. MRS Internet Journal of Nitride Semiconductor Research, 1996, 1, 1.	1.0	10
24	Growth and characterization of GaN layers on SiC substrates. Journal of Crystal Growth, 1996, 166, 601-606.	0.7	9
25	Investigation of n-GaN/p-SiC/n-SiC heterostructures. Journal of Crystal Growth, 2007, 300, 239-241.	0.7	8
26	Thick GaN Films Grown on Patterned Sapphire Substrates. ECS Transactions, 2011, 35, 91-97.	0.3	8
27	Hydride Vaporâ€Phase Epitaxy Reactor for Bulk GaN Growth. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900629.	0.8	8
28	Gas source molecular beam epitaxy of GaN with hydrazine on spinel substrates. Applied Physics Letters, 1998, 72, 2361-2363.	1.5	7
29	GaN Layers Grown by HVPE on P-type 6H-SiC Substrates. MRS Internet Journal of Nitride Semiconductor Research, 1996, 1, 1.	1.0	6
30	AlN Wafers Fabricated by Hydride Vapor Phase Epitaxy. Materials Research Society Symposia Proceedings, 1999, 595, 1.	0.1	6
31	Growth of SiC and GaN on Porous Buffer Layers. Materials Science Forum, 2000, 338-342, 225-228.	0.3	6
32	Luminescence properties of gallium nitride layers grown on silicon carbide substrates by gas-phase epitaxy in a chloride system. Semiconductors, 1997, 31, 523.	0.2	5
33	Picosecond time-resolved reflectivity of porous silicon. Optics Communications, 1994, 106, 65-68.	1.0	4
34	Effect of ion doping on the electrical and luminescent properties of 4H-SiC epitaxial p-n junctions. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 46, 259-262.	1.7	4
35	On the laser detachment of n-GaN films from substrates, based on the strong absorption of IR light by free charge carriers in n +-GaN substrates. Semiconductors, 2016, 50, 699-704.	0.2	4
36	Crystal Structure and Optical Properties of Bulk GaN Crystals Grown from a Melt at Reduced Pressure. Materials Science Forum, 1998, 264-268, 1331-1334.	0.3	3

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37	High Quality AlN and GaN Grown on Si(111) by Gas Source Molecular Beam Epitaxy with Ammonia. MRS Internet Journal of Nitride Semiconductor Research, 2000, 5, 467-473.	1.0	3
38	Study of the 3C-SiC layers grown on the 15R-SiC substrates. Semiconductors, 2009, 43, 756-759.	0.2	3
39	Effect of the electric field on the intensity and spectrum of emission from InGaN/GaN quantum wells. Semiconductors, 2009, 43, 1499-1505.	0.2	3
40	Properties and Effects of Hydrogen in GaN. Materials Research Society Symposia Proceedings, 1999, 595, 1.	0.1	2
41	Luminescent properties of GaN-based epitaxial layers and heterostructures grown on porous SiC substrates. Technical Physics Letters, 2007, 33, 83-85.	0.2	2
42	Effect of Growth Parameters on Stress in HVPE GaN Films. ECS Transactions, 2011, 35, 73-81.	0.3	2
43	On the laser lift-off of lightly doped micrometer-thick n-GaN films from substrates via the absorption of IR radiation in sapphire. Semiconductors, 2017, 51, 115-121.	0.2	2
44	Free-standing 2-inch bulk GaN crystal fabrication by HVPE using a carbon buffer layer. Journal of Physics: Conference Series, 2019, 1199, 012004.	0.3	2
45	Thick GaN Film Stress-induced Self-separation. , 2019, , .		2
46	GaN and AlN Layers Grown by Nano Epitaxial Lateral Overgrowth Technique on Porous Substrates. Materials Research Society Symposia Proceedings, 1999, 595, 1.	0.1	1
47	High Quality AlN and GaN Grown on Si(111) by Gas Source Molecular Beam Epitaxy with Ammonia. Materials Research Society Symposia Proceedings, 1999, 595, 1.	0.1	1
48	Electrical Properties of n-GaNâ•p-SiC Heterojunctions. Semiconductors, 2005, 39, 1403.	0.2	1
49	On Application of Sublimation Epitaxy to Growth of Bulk 3C-SiC Crystals. Materials Science Forum, 2011, 679-680, 12-15.	0.3	1
50	Recent progress in GaN/SiC LEDs and photopumped lasers. , 0, , .		0
51	Recent progress in AlGaN/GaN laser structures on 6H-SiC. , 1996, , .		0
52	GaN/GaAs(111)B grown by molecular beam epitaxy using hydrazine. , 1997, , .		0
53	Waveguide properties of gallium, aluminum, and indium nitride heterostructures. Semiconductors, 1997, 31, 51-54.	0.2	0
54	Optically Transparent 6H-Silicon Carbide. Materials Science Forum, 1998, 264-268, 53-56.	0.3	0

#	Article	IF	Citations
55	6H- and 4H-silicon carbide for device applications. , 0, , .		0
56	Electrical and optical properties of Mg ion implanted GaN p-n junctions. , 0, , .		0
57	Use of sublimation epitaxy for obtaining volume 3C-SiC crystals. Technical Physics Letters, 2010, 36, 574-576.	0.2	0
58	Hydride vapor phase epitaxy reactor for bulk GaN growth. , 2019, , .		0
59	Laser Slicingâ„¢Process for Gan-on-Gan Technology. , 2019, , .		0
60	Reactor materials for high purity HVPE GaN growth: a thermodynamic analysis. Journal of Physics: Conference Series, 2019, 1410, 012004.	0.3	0