

# S Yu Karpov

## List of Publications by Year in descending order

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163  
papers

3,640  
citations

136950

32  
h-index

175258

52  
g-index

168  
all docs

168  
docs citations

168  
times ranked

2554  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dislocation effect on light emission efficiency in gallium nitride. Applied Physics Letters, 2002, 81, 4721-4723.	3.3	170
2	ABC-model for interpretation of internal quantum efficiency and its droop in III-nitride LEDs: a review. Optical and Quantum Electronics, 2015, 47, 1293-1303.	3.3	170
3	Suppression of phase separation in InGaN due to elastic strain. MRS Internet Journal of Nitride Semiconductor Research, 1998, 3, 1.	1.0	160
4	GaN evaporation in molecular-beam epitaxy environment. Applied Physics Letters, 1999, 74, 1854-1856.	3.3	103
5	From Large-Size to Micro-LEDs: Scaling Trends Revealed by Modeling. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700508.	1.8	103
6	Impact of surface recombination on efficiency of III-nitride light-emitting diodes. Physica Status Solidi - Rapid Research Letters, 2016, 10, 480-484.	2.4	93
7	Temperature-Dependent Internal Quantum Efficiency of Blue High-Brightness Light-Emitting Diodes. IEEE Journal of Quantum Electronics, 2014, 50, 911-920.	1.9	91
8	Is Auger recombination responsible for the efficiency rollover in III-nitride light-emitting diodes?. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2066-2069.	0.8	84
9	Temperature-dependent recombination coefficients in InGaN light-emitting diodes: Hole localization, Auger processes, and the green gap. Applied Physics Letters, 2016, 109, .	3.3	79
10	On mechanisms of sublimation growth of AlN bulk crystals. Journal of Crystal Growth, 2000, 211, 68-72.	1.5	76
11	Novel approach to simulation of group-III nitrides growth by MOVPE. MRS Internet Journal of Nitride Semiconductor Research, 1999, 4, 1.	1.0	66
12	Global numerical simulation of heat and mass transfer for SiC bulk crystal growth by PVT. Journal of Crystal Growth, 2000, 211, 333-338.	1.5	62
13	Simulation of visible and ultra-violet group-III nitride light emitting diodes. Journal of Computational Physics, 2006, 213, 214-238.	3.8	58
14	Modeling of InGaN MOVPE in AIX 200 Reactor and AIX 2000 HT Planetary Reactor. MRS Internet Journal of Nitride Semiconductor Research, 1999, 4, 1.	1.0	57
15	Analysis of sublimation growth of bulk SiC crystals in tantalum container. Journal of Crystal Growth, 2000, 211, 347-351.	1.5	51
16	Statistical model of ternary group-III nitrides. Physical Review B, 2004, 70, .	3.2	50
17	Simulation of Sublimation Growth of SiC Single Crystals. Physica Status Solidi (B): Basic Research, 1997, 202, 201-220.	1.5	49
18	Efficiency droop suppression in InGaN-based blue LEDs: Experiment and numerical modelling. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 456-460.	1.8	48

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19	Mechanism of stress relaxation in (0001) InGaN/GaN via formation of V-shaped dislocation half-loops. Applied Physics Letters, 2013, 103, .	3.3	47
20	Carrier localization in InGaN by composition fluctuations: implication to the "green gap". Photonics Research, 2017, 5, A7.	7.0	47
21	Thermodynamic properties of group-III nitrides and related species. MRS Internet Journal of Nitride Semiconductor Research, 1998, 3, 1.	1.0	46
22	Hybrid CdZnO/GaN quantum-well light emitting diodes. Journal of Applied Physics, 2008, 104, 093107.	2.5	45
23	Modelling study of MQW LED operation. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2928-2931.	0.8	44
24	Current spreading and thermal effects in blue LED dice. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 45-48.	0.8	41
25	Optimal ways of colour mixing for high-quality white-light LED sources. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 914-919.	1.8	40
26	Coupled modeling of current spreading, thermal effects and light extraction in III-nitride light-emitting diodes. Semiconductor Science and Technology, 2008, 23, 125023.	2.0	38
27	Strain effects on indium incorporation and optical transitions in green-light InGaN heterostructures of different orientations. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 2671-2675.	1.8	38
28	Surface chemistry and transport effects in GaN hydride vapor phase epitaxy. Journal of Crystal Growth, 2004, 270, 384-395.	1.5	37
29	On low temperature kinetic effects in metal-organic vapor phase epitaxy of III-V compounds. Journal of Crystal Growth, 2001, 230, 232-238.	1.5	36
30	Virtual reactor as a new tool for modeling and optimization of SiC bulk crystal growth. Journal of Crystal Growth, 2001, 225, 307-311.	1.5	35
31	Indium incorporation and optical transitions in InGaN bulk materials and quantum wells with arbitrary polarity. Applied Physics Letters, 2010, 97, .	3.3	35
32	Determination of recombination coefficients in InGaN quantum-well light-emitting diodes by small-signal time-resolved photoluminescence. Japanese Journal of Applied Physics, 2016, 55, 05FJ01.	1.5	35
33	Effect of Die Shape and Size on Performance of III-Nitride Micro-LEDs: A Modeling Study. Photonics, 2018, 5, 41.	2.0	35
34	Surface kinetics of GaN evaporation and growth by molecular-beam epitaxy. Surface Science, 2000, 450, 191-203.	1.9	34
35	Effect of localized states on internal quantum efficiency of III-nitride LEDs. Physica Status Solidi - Rapid Research Letters, 2010, 4, 320-322.	2.4	32
36	Role of nonradiative recombination centers and extended defects in nonpolar GaN on light emission efficiency. Applied Physics Letters, 2011, 98, .	3.3	32

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37	Growth of silicon carbide by sublimation sandwich method in the atmosphere of inert gas. <i>Journal of Crystal Growth</i> , 2000, 208, 431-441.	1.5	30
38	Numerical study of SiC CVD in a vertical cold-wall reactor. <i>Computational Materials Science</i> , 2002, 24, 520-534.	3.0	30
39	Bandgap engineering of electronic and optoelectronic devices on native AlN and GaN substrates: A modelling insight. <i>Journal of Crystal Growth</i> , 2005, 281, 115-124.	1.5	30
40	Sublimation Growth of AlN in Vacuum and in a Gas Atmosphere. <i>Physica Status Solidi A</i> , 1999, 176, 435-438.	1.7	29
41	Modeling of III-nitride light-emitting diodes: progress, problems, and perspectives. <i>Proceedings of SPIE</i> , 2011, , .	0.8	29
42	Current crowding effect on light extraction efficiency of thin-film LEDs. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 2124-2126.	0.8	28
43	Simulation of light-emitting diodes for new physics understanding and device design. <i>Proceedings of SPIE</i> , 2012, , .	0.8	28
44	Experimental and theoretical study of electrical, thermal, and optical characteristics of InGaN/GaN high-power flip-chip LEDs. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 466-469.	1.8	28
45	Theoretical Model for Analysis and Optimization of Group III-Nitrides Growth by Molecular Beam Epitaxy. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1996, 1, 1.	1.0	27
46	The role of gaseous species in group-III nitride growth. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1997, 2, 1.	1.0	27
47	Effect of free-carrier absorption on performance of 808 nm AlGaAs-based high-power laser diodes. <i>Semiconductor Science and Technology</i> , 2007, 22, 502-510.	2.0	27
48	Evolution of thermoelastic strain and dislocation density during sublimation growth of silicon carbide. <i>Diamond and Related Materials</i> , 2000, 9, 446-451.	3.9	26
49	Model of the adsorption/desorption kinetics on a growing III-V compound surface. <i>Surface Science</i> , 1997, 393, 108-125.	1.9	25
50	Advances in modeling of wide-bandgap bulk crystal growth. <i>Crystal Research and Technology</i> , 2003, 38, 237-249.	1.3	25
51	Advances in the modeling of MOVPE processes. <i>Journal of Crystal Growth</i> , 2003, 248, 1-7.	1.5	25
52	Current status of GaN crystal growth by sublimation sandwich technique. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1998, 3, 1.	1.0	24
53	Effect of Carrier Localization on Recombination Processes and Efficiency of InGaN-Based LEDs Operating in the "Green Gap". <i>Applied Sciences (Switzerland)</i> , 2018, 8, 818.	2.5	24
54	Indium segregation kinetics in InGaAs ternary compounds. <i>Thin Solid Films</i> , 2000, 380, 71-74.	1.8	23

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55	In situ visualization of SiC physical vapor transport crystal growth. Journal of Crystal Growth, 2005, 275, e1807-e1812.	1.5	23
56	Analysis of vaporization kinetics of group-III nitrides. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 43, 167-171.	3.5	22
57	Analysis of silicon carbide growth by sublimation sandwich method. Journal of Crystal Growth, 1997, 173, 408-416.	1.5	21
58	Polarization doping for III-nitride optoelectronics. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1369-1376.	1.8	21
59	Bendable III-N Visible Light-Emitting Diodes beyond Mechanical Flexibility: Theoretical Study on Quantum Efficiency Improvement and Color Tunability by External Strain. ACS Photonics, 2016, 3, 486-493.	6.6	21
60	Analytical model for the quantum-confined Stark effect including electric field screening by non-equilibrium carriers. Physica Status Solidi (B): Basic Research, 2006, 243, 1625-1629.	1.5	20
61	Hybrid ZnO/III-nitride light-emitting diodes: modelling analysis of operation. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 241-245.	1.8	20
62	Differential carrier lifetime in InGaN-based light-emitting diodes obtained by small-signal frequency-domain measurements. Journal of Applied Physics, 2017, 121, .	2.5	20
63	Indium droplet formation during molecular beam epitaxy of InGaN. Journal of Crystal Growth, 1999, 206, 147-149.	1.5	19
64	Current crowding effects on blue LED operation. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1645-1648.	0.8	19
65	Light-emitting diodes for solid-state lighting: searching room for improvements. Proceedings of SPIE, 2016, , .	0.8	19
66	Analysis of V-group molecules sticking to III-V compound surfaces. Surface Science, 1995, 344, 11-22.	1.9	18
67	On the Possible Origins of Low Indium Incorporation during MOVPE of InGaN. Physica Status Solidi A, 1999, 176, 253-256.	1.7	18
68	Effect of gas-phase nucleation on chemical vapor deposition of silicon carbide. Journal of Crystal Growth, 2000, 211, 343-346.	1.5	17
69	GaN buffer growth temperature and efficiency of InGaN/GaN quantum wells: The critical role of nitrogen vacancies at the GaN surface. Applied Physics Letters, 2021, 118, .	3.3	17
70	Carrier injection and light emission in visible and UV nitride LEDs by modeling. Physica Status Solidi (B): Basic Research, 2004, 241, 2668-2671.	1.5	16
71	Nucleation and growth kinetics of GaAs during molecular beam epitaxy. Surface Science, 1994, 314, 79-88.	1.9	15
72	Analytical model of silicon carbide growth under free-molecular transport conditions. Journal of Crystal Growth, 1996, 169, 491-495.	1.5	15

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73	Indium-free violet LEDs grown by HVPE. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003, 0, 2265-2269.	0.8	15
74	Visible Light-Emitting Diodes. , 0, , 303-325.		15
75	Assessment of various LED structure designs for high-current operation. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, S804-S806.	0.8	15
76	Efficiency of True-Green Light Emitting Diodes: Non-Uniformity and Temperature Effects. <i>Materials</i> , 2017, 10, 1323.	2.9	15
77	Spontaneous polarization in IIIâ€œnitride materials: crystallographic revision. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1841-1843.	0.8	14
78	Metastable centers in AlGaIn/AlN/GaN heterostructures. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2012, 30, .	1.2	14
79	Superior color rendering with a phosphorâ€œconverted blueâ€œcyan monolithic lightâ€œemitting diode. <i>Laser and Photonics Reviews</i> , 2016, 10, 1031-1038.	8.7	14
80	Influence of electromechanical coupling on optical properties of InGaIn quantum-dot based light-emitting diodes. <i>Nanotechnology</i> , 2017, 28, 015701.	2.6	14
81	Instability of IIIâ€œV compound surfaces due to liquid phase formation. <i>Journal of Crystal Growth</i> , 1993, 129, 563-570.	1.5	13
82	Gallium droplet formation during MOVPE and thermal annealing of GaIn. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2001, 82, 22-24.	3.5	13
83	Effect of ITO spreading layer on performance of blue light-emitting diodes. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 2127-2129.	0.8	13
84	Carrier transport and emission efficiency in InGaIn quantum-dot based light-emitting diodes. <i>Nanotechnology</i> , 2017, 28, 275201.	2.6	13
85	Modeling of gas phase nucleation during silicon carbide chemical vapor deposition. <i>Diamond and Related Materials</i> , 2000, 9, 472-475.	3.9	12
86	Properties of undoped GaIn/InGaIn multi-quantum-wells and GaIn/InGaIn p-n junctions prepared by epitaxial lateral overgrowth. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	12
87	Indium Incorporation and Droplet Formation during InGaIn Molecular Beam Epitaxy. <i>Physica Status Solidi A</i> , 1999, 176, 297-300.	1.7	11
88	Role of oxygen in AlN sublimation growth. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003, 0, 1989-1992.	0.8	11
89	Modeling of facet formation in SiC bulk crystal growth. <i>Journal of Crystal Growth</i> , 2004, 266, 313-319.	1.5	11
90	Multiâ€œcolor monolithic IIIâ€œnitride lightâ€œemitting diodes: Factors controlling emission spectra and efficiency. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 19-29.	1.8	11

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91	Temperature effects on optical properties and efficiency of red AlGaInP-based light emitting diodes under high current pulse pumping. Journal of Applied Physics, 2018, 124, .	2.5	11
92	Radiative and Auger Recombination Constants and Internal Quantum Efficiency of (0001) AlGaIn Deep-UV Light-Emitting Diode Structures. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900878.	1.8	11
93	Modeling Study of Hydride Vapor Phase Epitaxy of GaN. Physica Status Solidi A, 1999, 176, 439-442.	1.7	10
94	Simulation of hybrid ZnO/AlGaIn single-heterostructure light-emitting diode. Applied Physics Letters, 2005, 87, 243502.	3.3	10
95	Quasi-thermodynamic model of SiGe epitaxial growth. Journal of Crystal Growth, 2001, 225, 268-273.	1.5	9
96	Solar-blind Al <sub>x</sub> Ga <sub>1-x</sub> N (x > 0.45) photodiodes with a polarization-p-doped emitter. Technical Physics Letters, 2016, 42, 635-638.	0.7	9
97	Monolithically-integrated hybrid heterostructure diode laser with dielectric-film waveguide DBR. IEEE Journal of Quantum Electronics, 1987, 23, 869-881.	1.9	8
98	Analysis of gallium nitride growth by gas-source molecular beam epitaxy. Journal of Crystal Growth, 1998, 187, 397-401.	1.5	8
99	Indium Segregation in MOVPE Grown InGaIn-Based Heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 311-314.	0.8	8
100	The use of magnesium to dope gallium nitride obtained by molecular-beam epitaxy from activated nitrogen. Semiconductors, 2003, 37, 838-842.	0.5	8
101	Surface Segregation and Composition Fluctuations in ammonia MBE and MOVPE of InGaIn. Materials Research Society Symposia Proceedings, 2000, 639, 3181.	0.1	7
102	A surface trap model and its application to analysis of III-nitride HEMT performance. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 2356-2359.	0.8	7
103	Optical confinement in laser diodes based on nitrides of Group III elements. Part 2: Analysis of heterostructures on various substrates. Semiconductors, 2008, 42, 852-857.	0.5	7
104	Polarization phenomena in light emission from c-plane Al(In)GaIn heterostructures. Physica Status Solidi (B): Basic Research, 2013, 250, 180-186.	1.5	7
105	Spectral dependence of light extraction efficiency of high-power III-nitride light-emitting diodes. Physica Status Solidi - Rapid Research Letters, 2015, 9, 312-316.	2.4	7
106	Conditions of excess liquid phase formation during molecular beam epitaxy of III-V ternary compounds. Journal of Crystal Growth, 1996, 162, 15-24.	1.5	6
107	Thermal etching of binary and ternary III-V compounds under vacuum conditions. Journal of Crystal Growth, 1996, 166, 167-171.	1.5	6
108	Effects of electron and optical confinement on performance of UV laser diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 603-606.	0.8	6

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109	ABC-model for interpretation of internal quantum efficiency and its droop in III-nitride LEDs. , 2014, , .		6
110	AlGaInP red-emitting light emitting diode under extremely high pulsed pumping. Proceedings of SPIE, 2016, , .	0.8	6
111	Barrier height modification and mechanism of carrier transport in Ni<i>in situ</i>grown Si<sub>3</sub>N<sub>4</sub>/n-GaN Schottky contacts. Semiconductor Science and Technology, 2018, 33, 025009.	2.0	6
112	Dependence of leakage current in Ni/Si<sub>3</sub>N<sub>4</sub>/n-GaN Schottky diodes on deposition conditions of silicon nitride. Semiconductor Science and Technology, 2018, 33, 115008.	2.0	6
113	Impact of metalorganic vapor phase epitaxy growth conditions on compressive strain relaxation in polar III-nitride heterostructures. Japanese Journal of Applied Physics, 2019, 58, SC1017.	1.5	6
114	Time of carrier escape and recombination coefficients in InGaN quantum-well active regions of blue, cyan, and green light-emitting diodes. Semiconductor Science and Technology, 2019, 34, 015007.	2.0	6
115	Sublimation Sandwich Growth of Free Standing GaN Crystals. Materials Research Society Symposia Proceedings, 1997, 482, 127.	0.1	5
116	A Quantitative Model of Surface Segregation in III-V Ternary Compounds. Materials Research Society Symposia Proceedings, 2000, 618, 185.	0.1	5
117	ZnO-Based Light Emitters. , 2006, , 525-554.		5
118	Current spreading, heat transfer, and light extraction in multi- $\mu$ m pixel LED array. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2070-2072.	0.8	5
119	Optical confinement in laser diodes based on nitrides of Group III elements. Part 1: Theory and optical properties of materials. Semiconductors, 2008, 42, 845-851.	0.5	5
120	Mechanism of carrier injection in (Ni/Au)/p-Al <sub>x</sub> Ga <sub>1-x</sub> N:Mg (0<math>\leq x</math><math><0.1</math>) Ohmic contacts. Applied Physics Letters, 2009, 95, 163502.	3.3	5
121	Gallium Nitride Doping with Carbon: A Thermodynamic Analysis. Physica Status Solidi (B): Basic Research, 2021, 258, 2100066.	1.5	5
122	BANDGAP ENGINEERING OF III-NITRIDE DEVICES ON LOW-DEFECT SUBSTRATES. , 2008, , 367-397.		5
123	Critical aspects of AlGaInP-based LED design and operation revealed by full electrical-thermal-optical simulations. Optics Express, 2021, 29, 35792.	3.4	5
124	A degradation rate study of MBE-grown high-power AlGaAs laser diodes. Semiconductor Science and Technology, 1994, 9, 345-348.	2.0	4
125	Mechanisms of optical confinement in phase-locked laser arrays. Semiconductor Science and Technology, 1996, 11, 372-379.	2.0	4
126	Kinetic model of GaAs(100) growth from molecular beams. Technical Physics Letters, 1997, 23, 38-40.	0.7	4



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127	Modeling of PVT Growth of Bulk SiC Crystals: General Trends and Reactor Scaling. Materials Research Society Symposia Proceedings, 2000, 616, 227.	0.1	4
128	Transport and Chemical Mechanisms in GaN Hydride Vapor Phase Epitaxy. Materials Research Society Symposia Proceedings, 2002, 743, L3.40.1.	0.1	4
129	Heterojunctions between group-III nitride short-period superlattices. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2394-2398.	0.8	4
130	Short period p-type AlN/AlGaIn superlattices for deep UV light emitters. Materials Research Society Symposia Proceedings, 2009, 1202, 251.	0.1	4
131	Correlations between Epitaxy Recipe, Characteristics, and Performance of Nitride Light Emitting Diode Structures. Japanese Journal of Applied Physics, 2013, 52, 08JB15.	1.5	4
132	Time-resolved reflection high energy electron diffraction study of dynamical surface processes during molecular beam epitaxy of GaAs and AlAs. Journal of Crystal Growth, 1995, 146, 344-348.	1.5	3
133	Use of molecular beam epitaxy for high-power AlGaAs laser production. Journal of Crystal Growth, 1995, 150, 1350-1353.	1.5	3
134	Growth Kinetics of GaN in Ammonia Atmosphere. Physica Status Solidi A, 1999, 176, 333-336.	1.7	3
135	Comparison of silicon epitaxial growth on the 200- and 300-mm wafers from trichlorosilane in Centura reactors. Microelectronic Engineering, 2001, 56, 93-98.	2.4	3
136	Modeling Analysis of Free-Spreading Sublimation Growth of SiC Crystals. Materials Research Society Symposia Proceedings, 2002, 742, 131.	0.1	3
137	Theoretical and experimental study of thermal management in high-power AlInGaIn LEDs. , 2014, , .		3
138	Effect of the design of the active region of monolithic multi-color LED heterostructures on their spectra and emission efficiency. Semiconductors, 2015, 49, 1516-1521.	0.5	3
139	Study of Al Incorporation in Chemical Vapor Deposition of p-Doped SiC. Materials Science Forum, 0, 821-823, 145-148.	0.3	3
140	effect of the parameters of AlN/GaN/AlGaIn and AlN/GaN/InAlN heterostructures with a two-dimensional electron gas on their electrical properties and the characteristics of transistors on their basis. Semiconductors, 2016, 50, 1383-1389.	0.5	3
141	Advanced model of metal-organic chemical vapor Deposition of Ba <sub>x</sub> Sr <sub>1-x</sub> TiO <sub>3</sub> oxides. Integrated Ferroelectrics, 2000, 30, 271-280.	0.7	2
142	Experimental and Theoretical Analysis of Heat and Mass Transport in the System for AlN Bulk Crystal Growth. Materials Research Society Symposia Proceedings, 2002, 743, L3.33.1.	0.1	2
143	Advanced model for the simulation of BST-film growth with MOCVD. Synthetic Metals, 2003, 138, 145-151.	3.9	2
144	Assessment of the pendeo epitaxy effect on 2DEG mobility in III nitride HEMT heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1980-1982.	0.8	2

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145	Energy of mixing of $Al_x In_y Ga_{1-x-y} N$ compounds. Technical Physics Letters, 2008, 34, 370-372.	0.7	2
146	Laterally overgrown GaN/InGaN multi-quantum well heterostructures: Electrical and optical properties. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1383-1385.	1.8	2
147	Assessment of factors limiting conversion efficiency of single-junction III-nitride solar cells. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 640-643.	0.8	2
148	Dyakonov Surface Electromagnetic Waves in III-Nitride Heterostructures. Physica Status Solidi (B): Basic Research, 2019, 256, 1800609.	1.5	2
149	Inverse-Computation Design of a SiC Bulk Crystal Growth System. Materials Research Society Symposia Proceedings, 2000, 640, 1.	0.1	1
150	Segregation effects and bandgap engineering in InGaN quantum-well heterostructures. Materials Research Society Symposia Proceedings, 2002, 743, L6.5.1.	0.1	1
151	Field-effect transistors based on AlGaIn/GaN/AlGaIn double-heterostructures grown by MBE. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2688-2691.	0.8	1
152	Coupled Modeling of Current Spreading, Thermal Effects, and Light Extraction in III-Nitride Light-Emitting Diodes. , 2007, , .		1
153	Novel evaluation procedure for internal and extraction efficiency of high-power blue LEDs. , 2014, , .		1
154	Influence of multilevel crystallization on the intensity oscillations of diffracted highenergy electrons during growth of aluminum arsenide by molecular beam epitaxy. Technical Physics Letters, 1997, 23, 307-308.	0.7	0
155	Comprehensive Reactor-Scale Modeling of III-V Ternary Compound Growth by Mvpe. Materials Research Society Symposia Proceedings, 2000, 616, 153.	0.1	0
156	Computational Experiment on CVD of SiC: Growth Rate, C/Si Ratio, Parasitic Phase Formation. Materials Research Society Symposia Proceedings, 2000, 616, 165.	0.1	0
157	Molecular-Beam Epitaxy Doping of Gallium Nitride with Magnesium from Ammonia. Semiconductors, 2004, 38, 148.	0.5	0
158	Comparison of electrical, thermal, and optical characteristics of high-power LEDs operating in various spectral ranges: From UV to green. , 2015, , .		0
159	Realistic model of LED structure with InGaIn quantum-dots active region. , 2015, , .		0
160	Mechanism of Carrier Transport in Hybrid GaN/AlN/Si Solar Cells. Journal of Electronic Materials, 2017, 46, 6078-6083.	2.2	0
161	Differential Charge Carrier Lifetime Investigated in a Blue InGaIn LED at Operational Conditions. , 2018, , .		0
162	A Universal Model for DX-Center Binding Energy in Cubic III-V Compounds. Physica Status Solidi (B): Basic Research, 2021, 258, 2000596.	1.5	0

#	ARTICLE	IF	CITATIONS
163	Scaling and optimization of chip design for mini- and micro-LEDs. , 2021, , .		0