

S Yu Karpov

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

158
papers

3,058
citations

30
h-index

46
g-index

168
ext. papers

3,341
ext. citations

2
avg. IF

5.56
L-index

#	Paper	IF	Citations
158	Critical aspects of AlGaInP-based LED design and operation revealed by full electrical-thermal-optical simulations. <i>Optics Express</i> , 2021 , 29, 35792-35805	3.3	3
157	Gallium Nitride Doping with Carbon: A Thermodynamic Analysis. <i>Physica Status Solidi (B): Basic Research</i> , 2021 , 258, 2100066	1.3	4
156	A Universal Model for DX-Center Binding Energy in Cubic III-V Compounds. <i>Physica Status Solidi (B): Basic Research</i> , 2021 , 258, 2000596	1.3	
155	GaN buffer growth temperature and efficiency of InGaN/GaN quantum wells: The critical role of nitrogen vacancies at the GaN surface. <i>Applied Physics Letters</i> , 2021 , 118, 111102	3.4	7
154	Radiative and Auger Recombination Constants and Internal Quantum Efficiency of (0001) AlGaIn Deep-UV Light-Emitting Diode Structures. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020 , 217, 1900878	1.6	7
153	Impact of metalorganic vapor phase epitaxy growth conditions on compressive strain relaxation in polar III-nitride heterostructures. <i>Japanese Journal of Applied Physics</i> , 2019 , 58, SC1017	1.4	6
152	Time of carrier escape and recombination coefficients in InGaIn quantum-well active regions of blue, cyan, and green light-emitting diodes. <i>Semiconductor Science and Technology</i> , 2019 , 34, 015007	1.8	5
151	Dyakonov Surface Electromagnetic Waves in III-Nitride Heterostructures. <i>Physica Status Solidi (B): Basic Research</i> , 2019 , 256, 1800609	1.3	2
150	Barrier height modification and mechanism of carrier transport in Ni/in situ grown Si ₃ N ₄ /n-GaN Schottky contacts. <i>Semiconductor Science and Technology</i> , 2018 , 33, 025009	1.8	4
149	Effect of Carrier Localization on Recombination Processes and Efficiency of InGaIn-Based LEDs Operating in the Green Gap. <i>Applied Sciences (Switzerland)</i> , 2018 , 8, 818	2.6	19
148	Temperature effects on optical properties and efficiency of red AlGaInP-based light emitting diodes under high current pulse pumping. <i>Journal of Applied Physics</i> , 2018 , 124, 013103	2.5	7
147	From Large-Size to Micro-LEDs: Scaling Trends Revealed by Modeling. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018 , 215, 1700508	1.6	64
146	Effect of Die Shape and Size on Performance of III-Nitride Micro-LEDs: A Modeling Study. <i>Photonics</i> , 2018 , 5, 41	2.2	23
145	Dependence of leakage current in Ni/Si ₃ N ₄ /n-GaN Schottky diodes on deposition conditions of silicon nitride. <i>Semiconductor Science and Technology</i> , 2018 , 33, 115008	1.8	4
144	Differential carrier lifetime in InGaIn-based light-emitting diodes obtained by small-signal frequency-domain measurements. <i>Journal of Applied Physics</i> , 2017 , 121, 035701	2.5	17
143	Mechanism of Carrier Transport in Hybrid GaN/AlN/Si Solar Cells. <i>Journal of Electronic Materials</i> , 2017 , 46, 6078-6083	1.9	
142	Carrier transport and emission efficiency in InGaIn quantum-dot based light-emitting diodes. <i>Nanotechnology</i> , 2017 , 28, 275201	3.4	5

141	Influence of electromechanical coupling on optical properties of InGaN quantum-dot based light-emitting diodes. <i>Nanotechnology</i> , 2017 , 28, 015701	3.4	7
140	Carrier localization in InGaN by composition fluctuations: implication to the green gap. <i>Photonics Research</i> , 2017 , 5, A7	6	35
139	Efficiency of True-Green Light Emitting Diodes: Non-Uniformity and Temperature Effects. <i>Materials</i> , 2017 , 10,	3.5	12
138	Solar-blind Al _x Ga _{1-x} N (x > 0.45) p-i-n photodiodes with a polarization-p-doped emitter. <i>Technical Physics Letters</i> , 2016 , 42, 635-638	0.7	7
137	Superior color rendering with a phosphor-converted blue-cyan monolithic light-emitting diode. <i>Laser and Photonics Reviews</i> , 2016 , 10, 1031-1038	8.3	8
136	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. <i>Semiconductors</i> , 2016 , 50, 1383-1389	0.7	3
135	Determination of recombination coefficients in InGaN quantum-well light-emitting diodes by small-signal time-resolved photoluminescence. <i>Japanese Journal of Applied Physics</i> , 2016 , 55, 05FJ01	1.4	32
134	Impact of surface recombination on efficiency of III-nitride light-emitting diodes. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016 , 10, 480-484	2.5	56
133	AlGaInP red-emitting light emitting diode under extremely high pulsed pumping 2016 ,		5
132	Multi-color monolithic III-nitride light-emitting diodes: Factors controlling emission spectra and efficiency. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016 , 213, 19-29	1.6	10
131	Bendable III-N Visible Light-Emitting Diodes beyond Mechanical Flexibility: Theoretical Study on Quantum Efficiency Improvement and Color Tunability by External Strain. <i>ACS Photonics</i> , 2016 , 3, 486-493	6.3	18
130	Light-emitting diodes for solid-state lighting: searching room for improvements 2016 ,		16
129	Temperature-dependent recombination coefficients in InGaN light-emitting diodes: Hole localization, Auger processes, and the green gap. <i>Applied Physics Letters</i> , 2016 , 109, 161103	3.4	67
128	Optimal ways of colour mixing for high-quality white-light LED sources. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015 , 212, 914-919	1.6	31
127	ABC-model for interpretation of internal quantum efficiency and its droop in III-nitride LEDs: a review. <i>Optical and Quantum Electronics</i> , 2015 , 47, 1293-1303	2.4	122
126	Study of Al Incorporation in Chemical Vapor Deposition of p-Doped SiC. <i>Materials Science Forum</i> , 2015 , 821-823, 145-148	0.4	3
125	Spectral dependence of light extraction efficiency of high-power III-nitride light-emitting diodes. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015 , 9, 312-316	2.5	7
124	Effect of the design of the active region of monolithic multi-color LED heterostructures on their spectra and emission efficiency. <i>Semiconductors</i> , 2015 , 49, 1516-1521	0.7	2

123	Novel evaluation procedure for internal and extraction efficiency of high-power blue LEDs 2014 ,		1
122	ABC-model for interpretation of internal quantum efficiency and its droop in III-nitride LEDs 2014 ,		5
121	Assessment of factors limiting conversion efficiency of single-junction III-nitride solar cells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014 , 11, 640-643		2
120	Temperature-Dependent Internal Quantum Efficiency of Blue High-Brightness Light-Emitting Diodes. <i>IEEE Journal of Quantum Electronics</i> , 2014 , 50, 911-920	2	76
119	Theoretical and experimental study of thermal management in high-power AlInGaN LEDs 2014 ,		2
118	Mechanism of stress relaxation in (0001) InGaN/GaN via formation of V-shaped dislocation half-loops. <i>Applied Physics Letters</i> , 2013 , 103, 152106	3-4	36
117	Polarization doping for III-nitride optoelectronics. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013 , 210, 1369-1376	1.6	19
116	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 ^{1.6}		24
115	Polarization phenomena in light emission from C-plane Al(In)GaN heterostructures. <i>Physica Status Solidi (B): Basic Research</i> , 2013 , 250, 180-186	1-3	7
114	Correlations between Epitaxy Recipe, Characteristics, and Performance of Nitride Light Emitting Diode Structures. <i>Japanese Journal of Applied Physics</i> , 2013 , 52, 08JB15	1.4	4
113	Simulation of light-emitting diodes for new physics understanding and device design 2012 ,		25
112	Efficiency droop suppression in InGaN-based blue LEDs: Experiment and numerical modelling. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012 , 209, 456-460	1.6	41
111	Metastable centers in AlGaIn/AlN/GaN heterostructures. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2012 , 30, 041209	1-3	12
110	Modeling of III-nitride light-emitting diodes: progress, problems, and perspectives 2011 ,		24
109	Strain effects on indium incorporation and optical transitions in green-light InGaIn heterostructures of different orientations. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011 , 208, 2671-2675 ^{1.6}		35
108	Role of nonradiative recombination centers and extended defects in nonpolar GaN on light emission efficiency. <i>Applied Physics Letters</i> , 2011 , 98, 072104	3-4	30
107	Indium incorporation and optical transitions in InGaIn bulk materials and quantum wells with arbitrary polarity. <i>Applied Physics Letters</i> , 2010 , 97, 051904	3-4	32
106	Effect of localized states on internal quantum efficiency of III-nitride LEDs. <i>Physica Status Solidi - Rapid Research Letters</i> , 2010 , 4, 320-322	2.5	30

105	Laterally overgrown GaN/InGaN multi-quantum well heterostructures: Electrical and optical properties. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010 , 207, 1383-1385	1.6	1
104	Spontaneous polarization in III-nitride materials: crystallographic revision. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010 , 7, 1841-1843		12
103	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		24
102	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		12
101	Mechanism of carrier injection in (Ni/Au)/p-Al _x Ga _{1-x} N:Mg(0). <i>Applied Physics Letters</i> , 2009 , 95, 163502	3.4	4
100	Properties of undoped GaN/InGaN multi-quantum-wells and GaN/InGaN p-n junctions prepared by epitaxial lateral overgrowth. <i>Journal of Applied Physics</i> , 2009 , 105, 123708	2.5	10
99	Short period p-type AlN/AlGa _n superlattices for deep UV light emitters.. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1202, 251		2
98	Effects of electron and optical confinement on performance of UV laser diodes. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009 , 6, 603-606		5
97	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		12
96	Coupled modeling of current spreading, thermal effects and light extraction in III-nitride light-emitting diodes. <i>Semiconductor Science and Technology</i> , 2008 , 23, 125023	1.8	33
95	Hybrid CdZnO/GaN quantum-well light emitting diodes. <i>Journal of Applied Physics</i> , 2008 , 104, 093107	2.5	37
94	Is Auger recombination responsible for the efficiency rollover in III-nitride light-emitting diodes?. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008 , 5, 2066-2069		74
93	Current spreading, heat transfer, and light extraction in multi-pixel LED array. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008 , 5, 2070-2072		4
92	Assessment of the pendeo-epitaxy effect on 2DEG mobility in III-nitride HEMT heterostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008 , 5, 1980-1982		2
91	Energy of mixing of Al _x In _y Ga _{1-x-y} N compounds. <i>Technical Physics Letters</i> , 2008 , 34, 370-372	0.7	2
90	Optical confinement in laser diodes based on nitrides of Group III elements. Part 1: Theory and optical properties of materials. <i>Semiconductors</i> , 2008 , 42, 845-851	0.7	3
89	Optical confinement in laser diodes based on nitrides of Group III elements. Part 2: Analysis of heterostructures on various substrates. <i>Semiconductors</i> , 2008 , 42, 852-857	0.7	3
88	BANDGAP ENGINEERING OF III-NITRIDE DEVICES ON LOW-DEFECT SUBSTRATES 2008 , 367-397		4

87	Current spreading and thermal effects in blue LED dice. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007 , 4, 45-48		37
86	Hybrid ZnO/III-nitride light-emitting diodes: modelling analysis of operation. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007 , 204, 241-245	1.6	18
85	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	1.8	21
84	Coupled Modeling of Current Spreading, Thermal Effects, and Light Extraction in III-Nitride Light-Emitting Diodes 2007 ,		1
83	Simulation of visible and ultra-violet group-III nitride light emitting diodes. <i>Journal of Computational Physics</i> , 2006 , 213, 214-238	4.1	52
82	ZnO-Based Light Emitters 2006 , 525-554		3
81	Current crowding effects on blue LED operation. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006 , 3, 1645-1648		16
80	A surface trap model and its application to analysis of III-nitride HEMT performance. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006 , 3, 2356-2359		7
79	Analytical model for the quantum-confined Stark effect including electric field screening by non-equilibrium carriers. <i>Physica Status Solidi (B): Basic Research</i> , 2006 , 243, 1625-1629	1.3	20
78	In situ visualization of SiC physical vapor transport crystal growth. <i>Journal of Crystal Growth</i> , 2005 , 275, e1807-e1812	1.6	20
77	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	1.6	24
76	Modelling study of MQW LED operation. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 2928-2931		40
75	Field-effect transistors based on AlGaIn/GaN/AlGaIn double-heterostructures grown by MBE. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 2688-2691		1
74	Heterojunctions between group-III nitride short-period superlattices. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 2394-2398		2
73	Simulation of hybrid ZnO/AlGaIn single-heterostructure light-emitting diode. <i>Applied Physics Letters</i> , 2005 , 87, 243502	3.4	9
72	Carrier injection and light emission in visible and UV nitride LEDs by modeling. <i>Physica Status Solidi (B): Basic Research</i> , 2004 , 241, 2668-2671	1.3	14
71	Modeling of facet formation in SiC bulk crystal growth. <i>Journal of Crystal Growth</i> , 2004 , 266, 313-319	1.6	9
70	Surface chemistry and transport effects in GaN hydride vapor phase epitaxy. <i>Journal of Crystal Growth</i> , 2004 , 270, 384-395	1.6	34

69	Statistical model of ternary group-III nitrides. <i>Physical Review B</i> , 2004 , 70,	3.3	46
68	Advances in modeling of wide-bandgap bulk crystal growth. <i>Crystal Research and Technology</i> , 2003 , 38, 237-249	1.3	21
67	Advances in the modeling of MOVPE processes. <i>Journal of Crystal Growth</i> , 2003 , 248, 1-7	1.6	23
66	Role of oxygen in AlN sublimation growth. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003 , 1989-1992		10
65	Indium-free violet LEDs grown by HVPE. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003 , 2265-2269		14
64	Indium Segregation in MOVPE Grown InGaN-Based Heterostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003 , 311-314		6
63	The use of magnesium to dope gallium nitride obtained by molecular-beam epitaxy from activated nitrogen. <i>Semiconductors</i> , 2003 , 37, 838-842	0.7	5
62	Advanced model for the simulation of BST-film growth with MOCVD. <i>Synthetic Metals</i> , 2003 , 138, 145-151	6	2
61	Experimental and Theoretical Analysis of Heat and Mass Transport in the System for AlN Bulk Crystal Growth. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 743, L3.33.1		1
60	Modeling Analysis of Free-Spreading Sublimation Growth of SiC Crystals. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 742, 131		3
59	Transport and Chemical Mechanisms in GaN Hydride Vapor Phase Epitaxy. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 743, L3.40.1		3
58	Segregation effects and bandgap engineering in InGaN quantum-well heterostructures. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 743, L6.5.1		
57	Dislocation effect on light emission efficiency in gallium nitride. <i>Applied Physics Letters</i> , 2002 , 81, 4721-4723	4.3	145
56	Numerical study of SiC CVD in a vertical cold-wall reactor. <i>Computational Materials Science</i> , 2002 , 24, 520-534	3.2	30
55	Comparison of silicon epitaxial growth on the 200- and 300-mm wafers from trichlorosilane in Centura reactors. <i>Microelectronic Engineering</i> , 2001 , 56, 93-98	2.5	2
54	Gallium droplet formation during MOVPE and thermal annealing of GaN. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2001 , 82, 22-24	3.1	11
53	Quasi-thermodynamic model of SiGe epitaxial growth. <i>Journal of Crystal Growth</i> , 2001 , 225, 268-273	1.6	7
52	Virtual reactor as a new tool for modeling and optimization of SiC bulk crystal growth. <i>Journal of Crystal Growth</i> , 2001 , 225, 307-311	1.6	27

51	On low temperature kinetic effects in metal-organic vapor phase epitaxy of III-V compounds. <i>Journal of Crystal Growth</i> , 2001 , 230, 232-238	1.6	30
50	Comprehensive Reactor-Scale Modeling of III-V Ternary Compound Growth by MOVPE. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 616, 153		
49	Computational Experiment on CVD of SiC: Growth Rate, C/Si Ratio, Parasitic Phase Formation. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 616, 165		
48	Modeling of PVT Growth of Bulk SiC Crystals: General Trends and 2D to 4D Reactor Scaling. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 616, 227		3
47	Inverse-Computation Design of a SiC Bulk Crystal Growth System. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 640, 1		
46	Growth of silicon carbide by sublimation sandwich method in the atmosphere of inert gas. <i>Journal of Crystal Growth</i> , 2000 , 208, 431-441	1.6	26
45	Effect of gas-phase nucleation on chemical vapor deposition of silicon carbide. <i>Journal of Crystal Growth</i> , 2000 , 211, 343-346	1.6	16
44	Analysis of sublimation growth of bulk SiC crystals in tantalum container. <i>Journal of Crystal Growth</i> , 2000 , 211, 347-351	1.6	48
43	On mechanisms of sublimation growth of AlN bulk crystals. <i>Journal of Crystal Growth</i> , 2000 , 211, 68-72	1.6	64
42	Global numerical simulation of heat and mass transfer for SiC bulk crystal growth by PVT. <i>Journal of Crystal Growth</i> , 2000 , 211, 333-338	1.6	56
41	Indium segregation kinetics in InGaAs ternary compounds. <i>Thin Solid Films</i> , 2000 , 380, 71-74	2.2	20
40	Advanced model of metal-organic chemical vapor Deposition of $BaxSr_{1-x}TiO_3$ oxides. <i>Integrated Ferroelectrics</i> , 2000 , 30, 271-280	0.8	1
39	A Quantitative Model of Surface Segregation in III-V Ternary Compounds. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 618, 185		5
38	Surface Segregation and Composition Fluctuations in ammonia MBE and MOVPE of InGaN. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 639, 3181		6
37	Surface kinetics of GaN evaporation and growth by molecular-beam epitaxy. <i>Surface Science</i> , 2000 , 450, 191-203	1.8	30
36	Evolution of thermoelastic strain and dislocation density during sublimation growth of silicon carbide. <i>Diamond and Related Materials</i> , 2000 , 9, 446-451	3.5	21
35	Modeling of gas phase nucleation during silicon carbide chemical vapor deposition. <i>Diamond and Related Materials</i> , 2000 , 9, 472-475	3.5	11
34	Novel approach to simulation of group-III nitrides growth by MOVPE. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1999 , 4, 1		63

33	Indium droplet formation during molecular beam epitaxy of InGaN. <i>Journal of Crystal Growth</i> , 1999 , 206, 147-149	1.6	19
32	On the Possible Origins of Low Indium Incorporation during MOVPE of InGaN. <i>Physica Status Solidi A</i> , 1999 , 176, 253-256		18
31	Indium Incorporation and Droplet Formation during InGaN Molecular Beam Epitaxy. <i>Physica Status Solidi A</i> , 1999 , 176, 297-300		9
30	Growth Kinetics of GaN in Ammonia Atmosphere. <i>Physica Status Solidi A</i> , 1999 , 176, 333-336		3
29	Sublimation Growth of AlN in Vacuum and in a Gas Atmosphere. <i>Physica Status Solidi A</i> , 1999 , 176, 435-438		26
28	Modeling Study of Hydride Vapor Phase Epitaxy of GaN. <i>Physica Status Solidi A</i> , 1999 , 176, 439-442		9
27	GaN evaporation in molecular-beam epitaxy environment. <i>Applied Physics Letters</i> , 1999 , 74, 1854-1856	3.4	90
26	Modeling of InGaN MOVPE in AIX 200 Reactor and AIX 2000 HT Planetary Reactor. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1999 , 4, 1		56
25	Analysis of gallium nitride growth by gas-source molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 1998 , 187, 397-401	1.6	8
24	Thermodynamic properties of group-III nitrides and related species. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1998 , 3, 1		45
23	Suppression of phase separation in InGaN due to elastic strain. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1998 , 3, 1		141
22	Current status of GaN crystal growth by sublimation sandwich technique. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1998 , 3, 1		23
21	Sublimation Sandwich Growth of Free Standing GaN Crystals. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 482, 127		4
20	Model of the adsorption/desorption kinetics on a growing III \bar{V} compound surface. <i>Surface Science</i> , 1997 , 393, 108-125	1.8	20
19	The role of gaseous species in group-III nitride growth. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1997 , 2, 1		26
18	Kinetic model of GaAs(100) growth from molecular beams. <i>Technical Physics Letters</i> , 1997 , 23, 38-40	0.7	3
17	Influence of multilevel crystallization on the intensity oscillations of diffracted highenergy electrons during growth of aluminum arsenide by molecular beam epitaxy. <i>Technical Physics Letters</i> , 1997 , 23, 307-308	0.7	
16	Analysis of vaporization kinetics of group-III nitrides. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1997 , 43, 167-171	3.1	20

15	Simulation of Sublimation Growth of SiC Single Crystals. <i>Physica Status Solidi (B): Basic Research</i> , 1997 , 202, 201-220	1.3	47
14	Analysis of silicon carbide growth by sublimation sandwich method. <i>Journal of Crystal Growth</i> , 1997 , 173, 408-416	1.6	19
13	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		24
12	Mechanisms of optical confinement in phase-locked laser arrays. <i>Semiconductor Science and Technology</i> , 1996 , 11, 372-379	1.8	3
11	Conditions of excess liquid phase formation during molecular beam epitaxy of III \bar{V} ternary compounds. <i>Journal of Crystal Growth</i> , 1996 , 162, 15-24	1.6	5
10	Thermal etching of binary and ternary III \bar{V} compounds under vacuum conditions. <i>Journal of Crystal Growth</i> , 1996 , 166, 167-171	1.6	5
9	Analytical model of silicon carbide growth under free-molecular transport conditions. <i>Journal of Crystal Growth</i> , 1996 , 169, 491-495	1.6	13
8	Time-resolved reflection high energy electron diffraction study of dynamical surface processes during molecular beam epitaxy of GaAs and AlAs. <i>Journal of Crystal Growth</i> , 1995 , 146, 344-348	1.6	3
7	Use of molecular beam epitaxy for high-power AlGaAs laser production. <i>Journal of Crystal Growth</i> , 1995 , 150, 1350-1353	1.6	2
6	Analysis of V-group molecules sticking to III \bar{V} compound surfaces. <i>Surface Science</i> , 1995 , 344, 11-22	1.8	16
5	A degradation rate study of MBE-grown high-power AlGaAs laser diodes. <i>Semiconductor Science and Technology</i> , 1994 , 9, 345-348	1.8	4
4	Nucleation and growth kinetics of GaAs during molecular beam epitaxy. <i>Surface Science</i> , 1994 , 314, 79-88.8		12
3	Instability of III \bar{V} compound surfaces due to liquid phase formation. <i>Journal of Crystal Growth</i> , 1993 , 129, 563-570	1.6	13
2	Monolithically-integrated hybrid heterostructure diode laser with dielectric-film waveguide DBR. <i>IEEE Journal of Quantum Electronics</i> , 1987 , 23, 869-881	2	7
1	Visible Light-Emitting Diodes		10