StanisBaw Krukowski

List of Publications by Citations

173 papers	2,277 citations	25 h-index	36 g-index
184 ext. papers	2,477 ext. citations	2.3 avg, IF	4.67 L-index

#	Paper	IF	Citations
173	Thermal conductivity of GaN crystals in 4.2–300 K range. *Solid State Communications*, **2003**, 128, 69-73	1.6	127
172	Luminescence and reflectivity in the exciton region of homoepitaxial GaN layers grown on GaN substrates. *Solid State Communications*, **1996**, 97, 919-922	1.6	121
171	Thermal properties of indium nitride. *Journal of Physics and Chemistry of Solids*, **1998**, 59, 289-295	3.9	92
170	Rietveld refinement for indium nitride in the 105–295 K range. *Powder Diffraction*, **2003**, 18, 114-121	1.8	81
169	Mechanisms of crystallization of bulk GaN from the solution under high N2 pressure. *Journal of Crystal Growth*, **2002**, 246, 177-186	1.6	49
168	Electrostatic condition for the termination of the opposite face of the slab in density functional theory simulations of semiconductor surfaces. *Journal of Applied Physics*, **2009**, 105, 113701	2.5	40
167	Ab initio studies of electronic properties of bare GaN(0001) surface. *Journal of Applied Physics*, **2009**, 106, 054901	2.5	37
166	Surface reaction of nitrogen with liquid group III metals. *Journal of Chemical Physics*, **2001**, 114, 6353-6363	3.9	36
165	Ab initio determination of atomic structure and energy of surface states of bare and hydrogen covered GaN (0001) surface – Existence of the Surface States Stark Effect (SSSE). *Surface Science*, **2011**, 605, 695-713	1.8	35
164	Correlation between luminescence and compositional striations in InGaN layers grown on miscut GaN substrates. *Applied Physics Letters*, **2007**, 91, 211904	3.4	35
163	Fermi level influence on the adsorption at semiconductor surfaces – b initio simulations. *Journal of Applied Physics*, **2013**, 114, 063507	2.5	33
162	Indium incorporation into InGaN and InAlN layers grown by metalorganic vapor phase epitaxy. *Journal of Crystal Growth*, **2011**, 318, 496-499	1.6	32
161	Interaction of N2 molecule with liquid Ga surface – quantum mechanical calculations (DFT). *Journal of Crystal Growth*, **1998**, 189-190, 159-162	1.6	32
160	Growth of InGaN and InGaN/InGaN quantum wells by plasma-assisted molecular beam epitaxy. *Journal of Crystal Growth*, **2008**, 310, 3983-3986	1.6	32
159	Role of structure of C-terminated 4H-SiC(0001) surface in growth of graphene layers: Transmission electron microscopy and density functional theory studies. *Physical Review B*, **2012**, 85,	3.3	31
158	Lattice parameters, density and thermal expansion of InN microcrystals grown by the reaction of nitrogen plasma with liquid indium. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1999**, 79, 1145-1154		31
157	On the nature of Surface States Stark Effect at clean GaN(0001) surface. *Journal of Applied Physics*, **2012**, 112, 113704	2.5	28

156	A comparative DFT study of electronic properties of 2H-, 4H- and 6H-SiC(0001) and SiC(000 bar{1}) clean surfaces: significance of the surface Stark effect. *New Journal of Physics*, **2010**, 12, 043024	2.9	28
155	Evidence of free carrier concentration gradient along the c-axis for undoped GaN single crystals. *Journal of Crystal Growth*, **2001**, 230, 442-447	1.6	28
154	Directional crystallization of GaN on high-pressure solution grown substrates by growth from solution and HVPE. *Journal of Crystal Growth*, **2002**, 246, 194-206	1.6	27
153	Thermal conductivity of GaN crystals grown by high pressure method. *Physica Status Solidi (B): Basic Research*, **2003**, 240, 447-450	1.3	27
152	High-nitrogen-pressure growth of GaN single crystals: doping and physical properties. *Journal of Physics Condensed Matter*, **2001**, 13, 8881-8890	1.8	27
151	Simulation of trap-assisted tunneling effect on characteristics of gallium nitride diodes. *Journal of Applied Physics*, **2012**, 111, 123115	2.5	26
150	Foundations of ab initio simulations of electric charges and fields at semiconductor surfaces within slab models. *Journal of Applied Physics*, **2013**, 114, 143705	2.5	26
149	Annealing of GaN under high pressure of nitrogen. *Journal of Physics Condensed Matter*, **2002**, 14, 11097-11102	1.8	26
148	Principal physical properties of GaN/AlN multiquantum well systems determined by density functional theory calculations. *Journal of Applied Physics*, **2013**, 113, 193706	2.5	25
147	Ni/Au contacts to p-type GaN: Structure and properties. *Solid-State Electronics*, **2010**, 54, 701-709	1.7	25
146	Density Functional Theory (DFT) Simulations and Polarization Analysis of the Electric Field in InN/GaN Multiple Quantum Wells (MQWs). *Journal of Physical Chemistry C*, **2010**, 114, 14410-14416	3.8	23
145	Recent Results in the Crystal Growth of GaN at High N2 Pressure. *MRS Internet Journal of Nitride Semiconductor Research*, **1996**, 1, 1		23
144	Adsorption of ammonia at GaN(0001) surface in the mixed ammonia/hydrogen ambient - a summary of ab initio data. *AIP Advances*, **2014**, 4, 117109	1.5	22
143	GaN Crystals: Growth and Doping Under Pressure. *Materials Research Society Symposia Proceedings*, **1997**, 482, 115		22
142	Deposition of bulk GaN from solution in gallium under high N2 pressure on silicon carbide and sapphire substrates. *Journal of Crystal Growth*, **2004**, 270, 409-419	1.6	22
141	Spreading of step-like density profiles in interacting lattice gas on a hexagonal lattice. *Surface Science*, **2000**, 457, 357-364	1.8	22
140	Photoluminescence study on GaN homoepitaxial layers grown by molecular beam epitaxy. *MRS Internet Journal of Nitride Semiconductor Research*, **1996**, 1, 1		22
139	Collective diffusion on hexagonal lattices: Repulsive interactions. *Surface Science*, **1999**, 441, 320-328	1.8	21

138	The Application of High Pressure in Physics and Technology of III-V Nitrides. *Acta Physica Polonica A*, **2001**, 100, 57-109	0.6	21
137	Correlation of optical and structural properties of GaN/AlN multi-quantum wells: Ab initio and experimental study. *Journal of Applied Physics*, **2016**, 119, 015703	2.5	21
136	Double step structure and meandering due to the many body interaction at GaN(0001) surface in N-rich conditions. *Journal of Applied Physics*, **2011**, 109, 023515	2.5	20
135	Influence of hydrogen and TMIn on indium incorporation in MOVPE growth of InGaN layers. *Journal of Crystal Growth*, **2014**, 402, 330-336	1.6	19
134	Molecular nitrogen-N2 properties: the intermolecular potential and the equation of state. *Journal of Chemical Physics*, **2007**, 126, 194501	3.9	19
133	Anomalous temperature characteristics of single wide quantum well InGaN laser diode. *Applied Physics Letters*, **2006**, 88, 071121	3.4	19
132	CFD and reaction computational analysis of the growth of GaN by HVPE method. *Journal of Crystal Growth*, **2006**, 296, 31-42	1.6	19
131	Growth of AlN, GaN and InN from the solution. *International Journal of Materials and Product Technology*, **2005**, 22, 226	1	19
130	Growth of GaN Single Crystals under High Nitrogen Pressures and their Characterization. *Crystal Research and Technology*, **1999**, 34, 785-795	1.3	19
129	Fermi level pinning and the charge transfer contribution to the energy of adsorption at semiconducting surfaces. *Journal of Applied Physics*, **2014**, 115, 043529	2.5	18
128	Thermodynamic and kinetic approach in density functional theory studies of microscopic structure of GaN(0001) surface in ammonia-rich conditions. *Journal of Chemical Physics*, **2008**, 129, 234705	3.9	18
127	Gallium nitride growth on sapphire/GaN templates at high pressure and high temperatures. *Journal of Crystal Growth*, **2005**, 274, 55-64	1.6	18
126	Ab initio investigation of adsorption of atomic and molecular hydrogen at GaN(0001) surface. *Journal of Crystal Growth*, **2012**, 358, 64-74	1.6	17
125	High pressure–high temperature seeded growth of GaN on 1 in sapphire/GaN templates: Analysis of convective transport. *Journal of Crystal Growth*, **2007**, 307, 259-267	1.6	16
124	Synthesis and Crystal Growth of AIIIBVSemiconducting Compounds Under High Pressure of Nitrogen. *Physica Scripta*, **1991**, T39, 242-249	2.6	16
123	Ab initio and experimental studies of polarization and polarization related fields in nitrides and nitride structures. *AIP Advances*, **2017**, 7, 015027	1.5	15
122	DFT modeling of carbon incorporation in GaN(0001) and GaN(000 1̄) metalorganic vapor phase epitaxy. *Applied Physics Letters*, **2017**, 111, 141602	3.4	15
121	Convection in an asymmetrically heated cylinder. *International Journal of Heat and Mass Transfer*, **1992**, 35, 2119-2130	4.9	15

120	Ab initio determination of electron affinity of polar nitride surfaces, clean and under Cs coverage. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2017**, 35, 021406	2.9	14
119	Adsorption of Hydrogen at the GaN(0001) Surface: An Ab Initio Study. *Journal of Physical Chemistry C*, **2015**, 119, 11563-11569	3.8	14
118	Structural and electronic properties of AlN(0001) surface under partial N coverage as determined by ab initio approach. *Journal of Applied Physics*, **2015**, 118, 095705	2.5	14
117	Thermodynamic foundations of applications of ab initio methods for determination of the adsorbate equilibria: hydrogen at the GaN(0001) surface. *Physical Chemistry Chemical Physics*, **2017**, 19, 29676-29684	3.6	13
116	Strain-compensated AlGaN□GaN□InGaN cladding layers in homoepitaxial nitride devices. *Applied Physics Letters*, **2007**, 91, 231914	3.4	13
115	Electron spin resonance of erbium in gallium nitride. *Solid State Communications*, **2000**, 114, 39-42	1.6	13
114	Emergence of regular meandered step structure in simulated growth of GaN(0001) surface. *Journal of Crystal Growth*, **2012**, 343, 138-144	1.6	12
113	Crystal growth of GaN on (0001) face by HVPE-atomistic scale simulation. *Journal of Crystal Growth*, **2007**, 303, 37-43	1.6	12
112	Blue lasers on high pressure grown GaN single crystal substrates. *Europhysics News*, **2004**, 35, 69-63	0.2	12
111	Linear piezoelectricity material constants for ammonothermal gallium nitride measured by bulk acoustic waves. *Semiconductor Science and Technology*, **2015**, 30, 035008	1.8	11
110	General aspects of the vapor growth of semiconductor crystals □A study based on DFT simulations of the NH3/NH2 covered GaN(0001) surface in hydrogen ambient. *Journal of Crystal Growth*, **2014**, 390, 71-79	1.6	11
109	Electronic properties on GaN(0001) surface □ab initio investigation. *Vacuum*, **2014**, 99, 166-174	3.7	11
108	Density functional theory determination of structural and electronic properties of struvite. *Journal of Physical Chemistry A*, **2010**, 114, 7800-8	2.8	11
107	Review: GaN growth by ammonia based methods □density functional theory study. *Crystal Research and Technology*, **2009**, 44, 1038-1046	1.3	11
106	Influence of substrate misorientation on properties of InGaN layers grown on freestanding GaN. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 1485-1487		11
105	Twin spin model of surface phase transitions in O/W(110). *Physical Review B*, **2001**, 65,	3.3	11
104	Surface morphology of as grown and annealed bulk GaN crystals. *MRS Internet Journal of Nitride Semiconductor Research*, **1996**, 1, 1		11
103	High pressure and time resolved studies of optical properties of n-type doped GaN/AlN multi-quantum wells: Experimental and theoretical analysis. *Journal of Applied Physics*, **2016**, 120, 095705	2.5	11

102	Thermodynamics of GaN(s)-NH 3 (v)+N 2 (v)+H 2 (v) system Electronic aspects of the processes at GaN(0001) surface. *Surface Science*, **2017**, 662, 12-33	1.8	10
101	Hydrogen intercalation of single and multiple layer graphene synthesized on Si-terminated SiC(0001) surface. *Journal of Applied Physics*, **2014**, 116, 083502	2.5	10
100	Density functional theory (DFT) study of Zn, O2 and O adsorption on polar ZnO(0001) and ZnO (0001) surfaces. *Journal of Crystal Growth*, **2013**, 374, 53-59	1.6	10
99	Synthesis of oxygen-free aluminium nitride ceramics. *Journal of Materials Science*, **1998**, 33, 3321-3324	4.3	10
98	Modelling the growth of nitrides in ammonia-rich environment. *Crystal Research and Technology*, **2007**, 42, 1281-1290	1.3	10
97	Crystal growth of GaN on (0001) face by HVPE: Ab initio simulations. *Journal of Crystal Growth*, **2008**, 310, 900-905	1.6	10
96	Fabrication and properties of GaN-based lasers. *Journal of Crystal Growth*, **2008**, 310, 3979-3982	1.6	10
95	Equation of state of nitrogen (N2) at high pressures and high temperatures: molecular dynamics simulation. *Journal of Chemical Physics*, **2006**, 124, 134501	3.9	10
94	Fractal to compact transition during growth of 2D Kossel crystal in vapor diffusion field. *Journal of Crystal Growth*, **1996**, 160, 167-176	1.6	10
93	Ab initio study of the properties of GaN(0001) surface at MOVPE and HVPE growth conditions. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2012**, 9, 826-829		9
92	Surface patterns due to step flow anisotropy formed in crystal growth process. *Journal of Non-Crystalline Solids*, **2010**, 356, 1935-1939	3.9	9
91	DFT modelling of the edge dislocation in 4H-SiC. *Journal of Materials Science*, **2019**, 54, 10737-10745	4.3	8
90	Adsorption of N2 and H2 at AlN(0001) Surface: Ab Initio Assessment of the Initial Stage of Ammonia Catalytic Synthesis. *Journal of Physical Chemistry C*, **2018**, 122, 20301-20311	3.8	8
89	Experimental and theoretical analysis of influence of barrier composition on optical properties of GaN/AlGaN multi-quantum wells: Temperature- and pressure-dependent photoluminescence studies. *Journal of Alloys and Compounds*, **2018**, 769, 1064-1071	5.7	8
88	Electronic charge transfer contribution in adsorption of silicon at the SiC(0001) surface A density functional theory (DFT) study. *Applied Surface Science*, **2017**, 393, 168-179	6.7	8
87	Crystallization of free standing bulk GaN by HVPE. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 1453-1456		8
86	Collective diffusion of O/W(1 1 0) at high coverages: Monte Carlo simulations. *Surface Science*, **2004** , 566-568, 210-215	1.8	8
85	Stability of indium nitride at N2 pressure up to 20 kbar. *AIP Conference Proceedings*, **1994**,	0	8

84	Adsorption of ammonia on hydrogen covered GaN(0001) surface Density Functional Theory study. *Journal of Crystal Growth*, **2014**, 401, 514-517	1.6	7
83	Thermodynamics and high-Pressure growth of (Al, Ga, In)N single crystals. *Diamond and Related Materials*, **1997**, 6, 1515-1523	3.5	7
82	Platelets and needles: Two habits of pressure-grown GaN crystals. *Journal of Crystal Growth*, **2007**, 305, 414-420	1.6	7
81	Thermal conductivity of bulk GaN single crystals. *Physica B: Condensed Matter*, **2003**, 329-333, 1531-1532	2.8	7
80	Growth of GaN on patterned GaN/sapphire substrates by high pressure solution method. *Journal of Crystal Growth*, **2005**, 281, 11-16	1.6	7
79	High-pressure direct synthesis of aluminium nitride. *Journal of Physics Condensed Matter*, **2002**, 14, 11237-11242	1.8	7
78	Influence of pressure on the properties of GaN/AlN multi-quantum wells Ab initio study. *Journal of Physics and Chemistry of Solids*, **2016**, 93, 100-117	3.9	6
77	DFT study of ammonia desorption from the GaN(0001) surface covered with a NH3/NH2 mixture. *Journal of Crystal Growth*, **2014**, 403, 105-109	1.6	6
76	Structural defects in epitaxial graphene layers synthesized on C-terminated 4H-SiC (0001) surface Transmission electron microscopy and density functional theory studies. *Journal of Applied Physics*, **2014**, 115, 054310	2.5	6
75	Structures Built by Steps Motion during Sublimation from Annealed GaN(0001) Surface. *Crystal Growth and Design*, **2013**, 13, 1006-1013	3.5	6
74	Transformation of complex spherical harmonics under rotations. *Journal of Physics A: Mathematical and Theoretical*, **2007**, 40, 15071-15082	2	6
73	Role of chlorine in the dynamics of GaN(0001) surface during HVPE GaN growth Ab initio study. *Journal of Crystal Growth*, **2008**, 310, 1391-1397	1.6	6
72	Crystallization of GaN by HVPE on pressure grown seeds. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 1654-1657	1.6	6
71	Collective diffusion in a twin-spin model of O/W(110). *Physical Review B*, **2003**, 67,	3.3	6
70	Microscopic theory of some thermodynamic properties of the solid vapor transition. *Journal of Chemical Physics*, **2002**, 117, 5866-5875	3.9	6
69	Annealing of gallium nitride under high-N2 pressure. *Physica B: Condensed Matter*, **1999**, 265, 295-299	2.8	6
68	Evolution of equilibrium forms of a two-dimensional Kossel crystal in a vapor diffusion field: A Monte Carlo simulation. *Physical Review B*, **1994**, 49, 12464-12474	3.3	6
67	Numerical evaluation of overlap integrals between atomic orbitals. *Computational and Theoretical Chemistry*, **2008**, 848, 34-39		5

66	GaN Single Crystal Habits and Their Relation to GaN Growth Under High Pressure of Nitrogen. *MRS Internet Journal of Nitride Semiconductor Research*, **1998**, 3, 1		5
65	InN Thermodynamics and Crystal Growth at High Pressure of N2. *Japanese Journal of Applied Physics*, **1993**, 32, 343	1.4	5
64	Chemical inactivity of GaN(0001) surface The role of oxygen adsorption Ab initio picture. *Materials Science in Semiconductor Processing*, **2019**, 91, 252-259	4.3	5
63	Experimental and first-principles studies of high-pressure effects on the structural, electronic, and optical properties of semiconductors and lanthanide doped solids. *Japanese Journal of Applied Physics*, **2017**, 56, 05FA02	1.4	4
62	Ab initio study of Ga-GaN system: Transition from adsorbed metal atoms to a metalSemiconductor junction. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2015**, 33, 061101	2.9	4
61	Adsorption of gallium on GaN(0001) surface in ammonia-rich conditions: A new effect associated with the Fermi level position. *Journal of Crystal Growth*, **2014**, 401, 78-81	1.6	4
60	Diffusion in the distortion field of a dislocation line. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1993**, 175, 349-352	2.3	4
59	Catalytic Synthesis of Nitric Monoxide at the AlN(0001) Surface: Ab Initio Analysis. *Journal of Physical Chemistry C*, **2019**, 123, 10893-10906	3.8	3
58	Time dependent simulations of the growth of IIIV crystals by the liquid phase electroepitaxy. *Journal of Crystal Growth*, **2011**, 318, 351-355	1.6	3
57	Numerical analysis of growth kinetics of bulk III-V crystals grown by liquid phase electroepitaxy. *Crystal Research and Technology*, **2010**, 45, 1290-1294	1.3	3
56	The influence of indium on the growth of GaN from solution under high pressure. *Journal of Crystal Growth*, **2010**, 312, 2593-2598	1.6	3
55	The role of the intermolecular potential in determination of equilibrium and dynamic properties of molecular nitrogen (N2) properties: MD simulations. *Journal of Physics: Conference Series*, **2008**, 121, 012011	0.3	3
54	Phase Transformations and p-T Diagram of Some HgX Compounds (X=S, Se, Te). *Japanese Journal of Applied Physics*, **1993**, 32, 26	1.4	3
53	DTA determination of the high-pressure-high-temperature phase diagram of CdSe. *Semiconductor Science and Technology*, **1992**, 7, 994-998	1.8	3
52	The homoepitaxial challenge: GaN crystals grown at high pressure for laser diodes and laser diode arrays **2013**, 18-77		3
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50	Influence of hydrogen pre-growth flow on indium incorporation into InGaN layers. *Journal of Crystal Growth*, **2017**, 464, 123-126	1.6	2
49	Dissipation of the excess energy of the adsorbate-thermalization via electron transfer. *Physical Chemistry Chemical Physics*, **2017**, 19, 9149-9155	3.6	2

48	DFT modeling of AlN/GaN multi-quantum wells. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2013**, 10, 323-326		2
47	Density functional study of GaN(0001)/AlN(0001) high electron mobility transistor structures. *Journal of Crystal Growth*, **2014**, 401, 30-32	1.6	2
46	Experimental and theoretical investigation of graphene layers on SiC(0001̄) in different stacking arrangements. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2012**, 30, 03D117	1.3	2
45	Molecular dynamic simulations of viscosity of argon at high pressures. *High Pressure Research*, **2008**, 28, 469-476	1.6	2
44	Growth of GaN on patterned GaN/sapphire substrates with various metallic masks by high pressure solution method **2006**,		2
43	Mass flow and reaction analysis of the growth of GaN by HVPE. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 131-134	1.6	2
42	Collective Diffusion of O Atoms on the W(110) Surface. *Defect and Diffusion Forum*, **2001**, 194-199, 309-31	0.6	2
41	Surface diffusion contribution to dendrite sidebranching during growth of 2D Kossel crystal from the vapor. *Journal of Crystal Growth*, **1999**, 203, 269-285	1.6	2
40	Phase diagram determination of II-VI semiconductors. *Thermochimica Acta*, **1994**, 245, 207-217	2.9	2
39	Combustion synthesis of AlN at high pressure of nitrogen and argon mixtures. *AIP Conference Proceedings*, **1994**,	0	2
38	Derivation of von Weizsäcker Equation Based on Green-Gauss Theorem. *Acta Physica Polonica A*, **2009**, 115, 653-655	0.6	2
37	Modification of the Newton's Method for the Simulations of Gallium Nitride Semiconductor Devices. *Lecture Notes in Computer Science*, **2014**, 551-560	0.9	2
36	Defect-related photoluminescence and photoluminescence excitation as a method to study the excitonic bandgap of AlN epitaxial layers: Experimental and ab initio analysis. *Applied Physics Letters*, **2020**, 117, 232101	3.4	2
35	Ab initio and thermodynamic picture of Al adsorption of AlN(0001) surface – Role of bond creation and electron transition contributions. *Applied Surface Science*, **2020**, 532, 147419	6.7	2
34	Nitrogen Dissolution in Liquid Ga and Fe: Comprehensive Analysis, Relevance for Crystallization of GaN. *Materials*, **2021**, 14,	3.5	2
33	Electric field dynamics in nitride structures containing quaternary alloy (Al, In, Ga)N. *Journal of Applied Physics*, **2016**, 120, 015702	2.5	2
32	Intrasurface electron transition contribution to energy of adsorption of silicon at the SiC(0001) surface – A density functional theory (DFT) study. *Journal of Crystal Growth*, **2017**, 468, 870-873	1.6	1
31	Instantaneous decay rate analysis of time resolved photoluminescence (TRPL): Application to nitrides and nitride structures. *Journal of Alloys and Compounds*, **2020**, 823, 153791	5.7	1

30	Doping effects in InN/GaN short-period quantum well structures□Theoretical studies based on density functional methods. *Journal of Crystal Growth*, **2014**, 401, 652-656	1.6	1
29	Unlimited Growth of III□V Bulk Crystals by Liquid-Phase Electroepitaxy. *Crystal Growth and Design*, **2011**, 11, 4684-4689	3.5	1
28	Determination of shear viscosity of molecular nitrogen (N2): molecular dynamic hard rotor methodology and the results. *Journal of Physical Chemistry B*, **2011**, 115, 4359-68	3.4	1
27	Platelets and needles: two habits of pressure grown GaN crystals. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2007**, 4, 2236-2239		1
26	Liquid phase epitaxy of GaN on MOCVD GaN/sapphire and HVPE free-standing substrates under high nitrogen pressure. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 1539-1542		1
25	Domain growth in the interacting adsorbate: Nonsymmetric particle jump model. *Physical Review B*, **2007**, 75,	3.3	1
24	Growth of GaN on patterned thick HVPE free standing GaN substrates by high pressure solution method. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 1487-1490		1
23	Growth of bulk GaN on GaN/sapphire templates by a high N2 pressure method. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 2685-2688	1.3	1
22	A Monte Carlo study of the dependence of the habits of Kossel crystal on dynamic parameters during two-dimensional growth. *Crystal Research and Technology*, **2005**, 40, 340-346	1.3	1
21	Chemical surface diffusion analysis by the time evolution of density profiles. The Monte Carlo simulations. *Vacuum*, **2001**, 63, 127-133	3.7	1
20	Diffusion and desorption processes in ordered (2□) lattice gas phase. *Surface Science*, **2002**, 507-510, 150-154	1.8	1
19	Stress tensor correlation functions and elastic moduli for an interface-a continuous model approach. *Journal of Physics C: Solid State Physics*, **1984**, 17, 5879-5885		1
18	Temperature distribution in the chamber used for crystal growth of GaN under high pressure of nitrogen. *MRS Internet Journal of Nitride Semiconductor Research*, **1996**, 1, 1		1
17	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	1
16	Optimization of InGaN Laser Diodes Based on Numerical Simulations. *Acta Physica Polonica A*, **2016**, 129, A-33-A-35	0.6	1
15	Wurtzite quantum well structures under high pressure. *Journal of Applied Physics*, **2020**, 128, 050901	2.5	1
14	Structural and emission improvement of cyan-emitting InGaN quantum wells by introducing a large substrate misorientation angle. *Optical Materials Express*, **2022**, 12, 119	2.6	1
13	Discretization of the Drift-Diffusion Equations with the Composite Discontinuous Galerkin Method. *Lecture Notes in Computer Science*, **2016**, 391-400	0.9	0

List of Publications

12	Influence of a parallel electric field on the dispersion relation of graphene A new route to Dirac logics. *Journal of Crystal Growth*, **2014**, 401, 869-873	1.6	0
11	Detection of Si doping in the AlN/GaN MQW using Super X - EDS measurements. *Micron*, **2020**, 134, 102864	1.9	0
10	Adsorption of nitrogen at AlN(000-1) surface Decisive role of structural and electronic factors. *Surface Science*, **2021**, 713, 121891	1.8	0
9	Control of growth uniformity of III V bulk crystals grown by contactless liquid phase electroepitaxy. *Journal of Crystal Growth*, **2012**, 355, 1-7	1.6	
8	Thermodynamics and Growth of GaN Single Crystals Under Pressure. *Materials Research Society Symposia Proceedings*, **1997**, 499, 349		
7	Growth of 2D nuclei A Monte Carlo study of existence of various habits. *Journal of Crystal Growth*, **2007**, 303, 23-29	1.6	
6	Adsorption and dissolution of nitrogen in lithium QM DFT investigation. *Journal of Crystal Growth*, **2007**, 304, 299-309	1.6	
5	High-Pressure Crystallization of GaN **2006**, 1-43		
4	High pressure, high temperature them determination of triple point in CdSe. *High Pressure Research* , **1992**, 10, 420-423	1.6	
3	Al coverage of AlN(0001) surface and Al vapor pressure Thermodynamic assessment based on ab initio calculations. *Computational Materials Science*, **2022**, 203, 111159	3.2	
2	Driven Diffusion in a Model of the O/W(110) System. *NATO Science Series Series II, Mathematics, Physics and Chemistry*, **2001**, 59-69		
1	High pressure studies of radiative recombination processes in nitride semiconductor alloys and quantum structures. *Japanese Journal of Applied Physics*, **2020**, 59, SA0802	1.4	