

# Nikolay Vostokov

## 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.

64  
papers

279  
citations

9  
h-index

13  
g-index

66  
ext. papers

299  
ext. citations

1.3  
avg, IF

2.47  
L-index

#	Paper	IF	Citations
64	Modeling the Response of a Microwave Low-Barrier Uncooled Mott Diode to the Action of Heavy Ions of Outer Space and Femtosecond Laser Pulses. <i>Semiconductors</i> , <b>2021</b> , 55, 780	0.7	
63	Simulation of the Response of a Low-Barrier Mott Diode to the Influence of Heavy Charged Particles from Outer Space. <i>Technical Physics Letters</i> , <b>2021</b> , 47, 305-308	0.7	1
62	Microwave detector diodes based on InGaAs/AlGaAs/GaAs heterostructures. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 044503	2.5	1
61	Microwave Volt Impedance Spectroscopy of Semiconductors. <i>Technical Physics</i> , <b>2020</b> , 65, 1859-1865	0.5	
60	Low-barrier Mott diodes with near-surface polarization-induced Doping. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 013505	3.4	1
59	Vertical Field-Effect Transistor with a Controlling GaAs-Based p-n Junction. <i>Semiconductors</i> , <b>2019</b> , 53, 1279-1281	0.7	
58	Detectors Based on Low-Barrier Mott Diodes and Their Characteristics in the 150-50 GHz Range. <i>Technical Physics Letters</i> , <b>2019</b> , 45, 239-241	0.7	3
57	Study of Electrophysical Characteristics of pHEMT Heterostructures by the Methods of Impedance Spectroscopy. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 1327-1332	2.9	4
56	Experimental Studies of the Frequency Dependence of the Low-Barrier Mott Diode Impedance. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 109-114	2.9	6
55	Influence of the channel gate barrier height on the detection properties of a field-effect transistor in the microwave and terahertz ranges. <i>Technical Physics</i> , <b>2017</b> , 62, 765-772	0.5	0
54	Near-field microwave tomography of planar semiconductor microstructures. <i>Journal of Applied Physics</i> , <b>2017</b> , 122, 244505	2.5	3
53	Terahertz signal detection in a short gate length field-effect transistor with a two-dimensional electron gas. <i>Journal of Applied Physics</i> , <b>2015</b> , 118, 204503	2.5	
52	Analytical solution for the potential distribution in a stripe Schottky contact. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 244503	2.5	1
51	Application of low-barrier metal-semiconductor-metal structures for the detection of microwave signals. <i>Technical Physics</i> , <b>2014</b> , 59, 1036-1040	0.5	5
50	Sensing Microwave-Terahertz Detectors Based on Metal-Semiconductor-Metal Structures With Symmetrical I-V Characteristic. <i>IEEE Journal of the Electron Devices Society</i> , <b>2013</b> , 1, 76-82	2.3	4
49	Recharging dynamics of Al Nanoclusters in a GaAs matrix. <i>Journal of Surface Investigation</i> , <b>2012</b> , 6, 564-567		
48	Quantitative analysis of the elemental composition and electron concentration in AlGaIn/GaN heterostructures with a two-dimensional electron channel by means of SIMS and C-V profiling. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , <b>2012</b> , 76, 221-224	0.4	4

47	Electrical and structural parameters of YBCO films obtained by repeated growth cycles. <i>Technical Physics Letters</i> , <b>2011</b> , 37, 671-673	0.7	1
46	Simulation of the Electron Transport in a Mott Diode by the Monte Carlo Method. <i>IEEE Transactions on Electron Devices</i> , <b>2011</b> , 58, 2507-2510	2.9	10
45	Photoconductivity of InAs/GaAs structures with InAs nanoclusters in the near-infrared region. <i>Semiconductors</i> , <b>2010</b> , 44, 1464-1466	0.7	2
44	Deposition of YBCO films on both sides of substrate by magnetron sputtering. <i>Technical Physics Letters</i> , <b>2010</b> , 36, 859-861	0.7	1
43	The sandwich InGaAs/GaAs quantum dot structure for IR photoelectric detectors <b>2010</b> , 42, 99		
42	10.1007/s11453-008-3010-9 <b>2010</b> , 42, 298		
41	Competition between the barrier and injection mechanisms of nonlinearity of the current-voltage characteristic in Mott-barrier detector diodes. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 043702	2.5	7
40	Comparative analysis of morphology and optical properties of GaN layers on sapphire. <i>Journal of Surface Investigation</i> , <b>2009</b> , 3, 718-720	0.5	1
39	Analytical solution for charge-carrier injection into an insulating layer in the drift diffusion approximation. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 123708	2.5	7
38	Effect of B atoms on the properties of InAs quantum dots in the GaAs matrix. <i>Journal of Surface Investigation</i> , <b>2008</b> , 2, 514-517	0.5	4
37	The sandwich InGaAs/GaAs quantum dot structure for IR photoelectric detectors. <i>Semiconductors</i> , <b>2008</b> , 42, 99-103	0.7	5
36	Photoluminescence up to 1.6 $\mu\text{m}$ of quantum dots with an increased effective thickness of the InAs layer. <i>Semiconductors</i> , <b>2008</b> , 42, 298-304	0.7	1
35	Admittance and nonlinear capacitance of a multilayer metal-semiconductor structure. <i>Semiconductors</i> , <b>2008</b> , 42, 783-787	0.7	4
34	Solution of the problem of charge-carrier injection into an insulating layer under self-consistent boundary conditions at contacts. <i>Semiconductors</i> , <b>2008</b> , 42, 1309-1314	0.7	
33	Picosecond kinetics of photoexcited carriers in gallium arsenide containing aluminum nanoclusters. <i>Semiconductors</i> , <b>2007</b> , 41, 909-913	0.7	2
32	Diagnostics of cap layers in InAs(N) quantum-dot multilayer structures on GaAs(001), grown by metal-organic vapor-phase epitaxy. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , <b>2007</b> , 71, 103-105 <sup>0.4</sup>		
31	MOVPE of structures with aluminum nanocluster layers in a GaAs matrix. <i>Technical Physics Letters</i> , <b>2007</b> , 33, 444-446	0.7	1
30	Synthesis of cyanoethyl chitosan derivatives. <i>Polymer Science - Series A</i> , <b>2006</b> , 48, 483-488	1.2	4

29	Special features of the formation of Ge(Si) islands on the relaxed Si <sub>1-x</sub> Ge <sub>x</sub> /Si(001) buffer layers. <i>Semiconductors</i> , <b>2006</b> , 40, 229-233	0.7	5
28	Optimization of the temperature mode of metal-organic chemical vapor deposition of the InAs(N) quantum dots on GaAs (001) with intense photoluminescence at 1.3 $\mu\text{m}$ . <i>Semiconductors</i> , <b>2006</b> , 40, 449-453	0.7	7
27	Growth and photoluminescence of self-assembled islands obtained during the deposition of Ge on a strained SiGe layer. <i>Optical Materials</i> , <b>2005</b> , 27, 818-821	3.3	31
26	Effect of the parameters of sapphire substrates on the crystalline quality of GaN layers. <i>Semiconductors</i> , <b>2005</b> , 39, 1	0.7	1
25	A study of the properties of the structures with Al nanoclusters incorporated into the GaAs matrix. <i>Semiconductors</i> , <b>2005</b> , 39, 82	0.7	
24	Influence of a predeposited Si <sub>1-x</sub> Ge <sub>x</sub> layer on the growth of self-assembled SiGe/Si(001) islands. <i>Physics of the Solid State</i> , <b>2005</b> , 47, 26	0.8	8
23	Influence of the germanium deposition rate on the growth and Photoluminescence of Ge(Si)/Si(001) self-assembled islands. <i>Physics of the Solid State</i> , <b>2005</b> , 47, 38	0.8	4
22	Si <sub>1-x</sub> Ge <sub>x</sub> /Si(001) relaxed buffer layers grown by chemical vapor deposition at atmospheric pressure. <i>Physics of the Solid State</i> , <b>2005</b> , 47, 42	0.8	8
21	Fabrication of Strain-Relaxed Si <sub>1-x</sub> Ge <sub>x</sub> /Si(001) Buffer Layers of Low Surface Roughness. <i>Russian Microelectronics</i> , <b>2005</b> , 34, 203-209	0.5	5
20	Fabrication and characterization of stress-free microbeams for MEMS applications. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2005</b> , 2, 1433-1437		1
19	GeSi/Si(001) Structures with Self-Assembled Islands: Growth and Optical Properties <b>2005</b> , 333-351		2
18	Photoluminescence of self-assembled GeSi/Si(001) nanoislands of different shapes. <i>Physics of the Solid State</i> , <b>2004</b> , 46, 60-63	0.8	8
17	On the role of tunneling in metal-semiconductor nanocontacts. <i>Journal of Experimental and Theoretical Physics</i> , <b>2004</b> , 99, 211-216	1	11
16	Electrical properties of metal-semiconductor nanocontacts. <i>Semiconductors</i> , <b>2004</b> , 38, 1047-1052	0.7	6
15	Interference nanolithography with a UV laser. <i>Technical Physics</i> , <b>2004</b> , 49, 1191-1195	0.5	2
14	Photoluminescence of GeSi/Si(0 0 1) self-assembled islands with dome and hut shape. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2004</b> , 23, 416-420	3	6
13	Photoluminescence of Ge(Si)/Si(0 0 1) self-assembled islands in the near infra-red wavelength range. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2003</b> , 16, 467-472	3	7
12	Effect of cation composition on the superconducting properties and on the microstructure of YBaCuO thin films. <i>Physics of the Solid State</i> , <b>2003</b> , 45, 2025-2030	0.8	1

11	Strain-driven alloying: effect on sizes, shape and photoluminescence of GeSi/Si(001) self-assembled islands. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2002</b> , 89, 62-65	3.1	16
10	Low-energy photoluminescence of structures with GeSi/Si(001) self-assembled nanoislands. <i>JETP Letters</i> , <b>2002</b> , 76, 365-369	1.2	18
9	Special features in the synthesis and properties of thin Y-Ba-Cu-O high-temperature superconductor films free of secondary phases. <i>Technical Physics Letters</i> , <b>2001</b> , 27, 197-199	0.7	
8	Observation of laser-induced local modification of magnetic order in transition metal layers. <i>JETP Letters</i> , <b>2001</b> , 73, 192-196	1.2	7
7	Transition from dome to pyramid shape of self-assembled GeSi islands. <i>Journal of Crystal Growth</i> , <b>2000</b> , 209, 302-305	1.6	11
6	The elastic strain and composition of self-assembled GeSi islands on Si(001). <i>Thin Solid Films</i> , <b>2000</b> , 367, 171-175	2.2	13
5	Elastic strain and composition of self-assembled GeSi nanoislands on Si(001). <i>Semiconductors</i> , <b>2000</b> , 34, 6-10	0.7	3
4	Coherent effect of four XeCl laser beams on a surface. <i>Quantum Electronics</i> , <b>2000</b> , 30, 333-336	1.8	9
3	Development of contact scanning probe lithography methods for the fabrication of lateral nano-dimensional elements. <i>Nanotechnology</i> , <b>2000</b> , 11, 188-191	3.4	4
2	Study of correlation between the microstructure and phase inhomogeneities of Y-Ba-Cu-O epitaxial films and their DC and microwave properties. <i>Superconductor Science and Technology</i> , <b>1999</b> , 12, 908-911	3.1	9
1	Investigation of inhomogeneities in thin films of high-temperature superconductors by scanning probe microscopy. <i>Technical Physics Letters</i> , <b>1999</b> , 25, 154-156	0.7	