

Vladimir A Gritsenko

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163
papers

2,661
citations

29
h-index

43
g-index

179
ext. papers

3,012
ext. citations

2.2
avg, IF

5.42
L-index

#	Paper	IF	Citations
163	Two-band conduction of amorphous silicon nitride. <i>Physica Status Solidi A</i> , 1974 , 26, 489-495		96
162	Oxygen deficiency defects in amorphous Al ₂ O ₃ . <i>Journal of Applied Physics</i> , 2010 , 108, 013501	2.5	88
161	Electronic properties of hafnium oxide: A contribution from defects and traps. <i>Physics Reports</i> , 2016 , 613, 1-20	27.7	87
160	Electronic structure of HfO ₂ with oxygen vacancy: ab initio calculations and comparison with experiment. <i>Journal of Applied Physics</i> , 2011 , 110, 024115	2.5	83
159	Electronic structure of silicon dioxide (a review). <i>Physics of the Solid State</i> , 2014 , 56, 207-222	0.8	79
158	Excess silicon at the silicon nitride/thermal oxide interface in oxide/nitride/oxide structures. <i>Journal of Applied Physics</i> , 1999 , 86, 3234-3240	2.5	74
157	Thermally assisted hole tunneling at the Au/Bi ₂ N ₄ interface and the energy-band diagram of metal-nitride-oxide-semiconductor structures. <i>Physical Review B</i> , 1998 , 57, R2081-R2083	3.3	72
156	Raman study of silicon nanocrystals formed in SiN _x films by excimer laser or thermal annealing. <i>Applied Physics Letters</i> , 1998 , 73, 1212-1214	3.4	68
155	Atomic and electronic structure of amorphous and crystalline hafnium oxide: X-ray photoelectron spectroscopy and density functional calculations. <i>Journal of Applied Physics</i> , 2007 , 101, 053704	2.5	66
154	Short Range Order and the Nature of Defects and Traps in Amorphous Silicon Oxynitride Governed by the Mott Rule. <i>Physical Review Letters</i> , 1998 , 81, 1054-1057	7.4	66
153	Electronic structure of HfAl ₂ O ₃ : Ab initio simulations and comparison with experiment. <i>JETP Letters</i> , 2007 , 85, 165-168	1.2	64
152	Two-bands charge transport in silicon nitride due to phonon-assisted trap ionization. <i>Journal of Applied Physics</i> , 2004 , 96, 4293-4296	2.5	61
151	Charge transport in dielectrics via tunneling between traps. <i>Journal of Applied Physics</i> , 2011 , 109, 093705	2.5	60
150	Charge transport mechanism in amorphous alumina. <i>Applied Physics Letters</i> , 2009 , 94, 222904	3.4	56
149	Mechanism of GeO ₂ resistive switching based on the multi-phonon assisted tunneling between traps. <i>Applied Physics Letters</i> , 2012 , 100, 243506	3.4	49
148	On the nature of deep centres responsible for the memory effect and luminescence of a-SiN _x with x > 4/3. <i>Physica Status Solidi A</i> , 1986 , 94, K107-K112		48
147	Application and electronic structure of high-permittivity dielectrics. <i>Physics-Uspekhi</i> , 2010 , 53, 561-575	2.8	46

146	Identification of the nature of traps involved in the field cycling of Hf _{0.5} Zr _{0.5} O ₂ -based ferroelectric thin films. <i>Acta Materialia</i> , 2019 , 166, 47-55	8.4	46
145	Atomic structure of the amorphous nonstoichiometric silicon oxides and nitrides. <i>Physics-Uspekhi</i> , 2008 , 51, 699-708	2.8	45
144	The origin of 2.7 eV luminescence and 5.2 eV excitation band in hafnium oxide. <i>Applied Physics Letters</i> , 2014 , 104, 071904	3.4	34
143	Charge Transport and the Nature of Traps in Oxygen Deficient Tantalum Oxide. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 3769-3775	9.5	33
142	Oxygen Vacancy in Hafnia as a Blue Luminescence Center and a Trap of Charge Carriers. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 19980-19986	3.8	32
141	Transport mechanisms of electrons and holes in dielectric films. <i>Physics-Uspekhi</i> , 2013 , 56, 999-1012	2.8	30
140	Optical Properties of TiO ₂ Films Deposited by Reactive Electron Beam Sputtering. <i>Journal of Electronic Materials</i> , 2017 , 46, 6089-6095	1.9	30
139	Origin of traps and charge transport mechanism in hafnia. <i>Applied Physics Letters</i> , 2014 , 105, 222901	3.4	30
138	Electronic structure of silicon nitride. <i>Physics-Uspekhi</i> , 2012 , 55, 498-507	2.8	30
137	Electronic band structure and effective masses of electrons and holes in the α and β phases of silicon nitride. <i>Physics of the Solid State</i> , 2007 , 49, 1628-1632	0.8	30
136	Short-range order, large-scale potential fluctuations, and photoluminescence in amorphous SiN _x . <i>Journal of Experimental and Theoretical Physics</i> , 2004 , 98, 760-769	1	30
135	The origin of 2.7 eV blue luminescence band in zirconium oxide. <i>Journal of Applied Physics</i> , 2014 , 116, 244109	2.5	29
134	Nature of traps responsible for the memory effect in silicon nitride. <i>Applied Physics Letters</i> , 2016 , 109, 062904	3.4	29
133	Valence band offset at silicon/silicon nitride and silicon nitride/silicon oxide interfaces. <i>Thin Solid Films</i> , 2003 , 437, 135-139	2.2	28
132	Electronic structure of an oxygen vacancy in Al ₂ O ₃ from the results of Ab Initio quantum-chemical calculations and photoluminescence experiments. <i>Journal of Experimental and Theoretical Physics</i> , 2010 , 111, 989-995	1	26
131	Composition and structure of hafnia films on silicon. <i>Inorganic Materials</i> , 2008 , 44, 965-970	0.9	26
130	Electronic structure of TiO ₂ rutile with oxygen vacancies: Ab initio simulations and comparison with the experiment. <i>Journal of Experimental and Theoretical Physics</i> , 2011 , 112, 310-316	1	25
129	Charge transport in amorphous Hf _{0.5} Zr _{0.5} O ₂ . <i>Applied Physics Letters</i> , 2015 , 106, 102906	3.4	23

128	Electronic structure of aluminum oxide: ab initio simulations of α and β phases and comparison with experiment for amorphous films. <i>EPJ Applied Physics</i> , 2010 , 52, 30501	1.1	22
127	Bonding and band offset in N ₂ O-grown oxynitride. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2003 , 21, 241		22
126	Charge transport mechanism in thin films of amorphous and ferroelectric Hf _{0.5} Zr _{0.5} O ₂ . <i>JETP Letters</i> , 2015 , 102, 544-547	1.2	21
125	Phonon-coupled trap-assisted charge injection in metal-nitride-oxide-silicon/silicon-oxide-nitride-oxide-silicon structures. <i>Journal of Applied Physics</i> , 2009 , 105, 123709	2.5	21
124	Study of Excess Silicon at Si ₃ N ₄ / Thermal SiO ₂ Interface Using EELS and Ellipsometric Measurements. <i>Journal of the Electrochemical Society</i> , 1999 , 146, 780-785	3.9	21
123	Electronic Structure of Noncentrosymmetric β -GeO ₂ with Oxygen Vacancy: Ab Initio Calculations and Comparison with Experiment. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 3644-3650	3.8	20
122	Numerical simulation of intrinsic defects in SiO ₂ and Si ₃ N ₄ . <i>Semiconductors</i> , 2001 , 35, 997-1005	0.7	20
121	Short-range order in amorphous SiO _x by x ray photoelectron spectroscopy. <i>Journal of Applied Physics</i> , 2011 , 110, 014107	2.5	19
120	The atomic and electron structure of ZrO ₂ . <i>Journal of Experimental and Theoretical Physics</i> , 2006 , 102, 799-809	1	19
119	On silicon nitride conductivity. <i>Physica Status Solidi A</i> , 1980 , 62, K131-K134		19
118	All Nonmetal Resistive Random Access Memory. <i>Scientific Reports</i> , 2019 , 9, 6144	4.9	17
117	Bipolar conductivity in amorphous HfO ₂ . <i>Applied Physics Letters</i> , 2011 , 99, 072109	3.4	17
116	Charge transport mechanism of high-resistive state in RRAM based on SiO _x . <i>Applied Physics Letters</i> , 2019 , 114, 033503	3.4	16
115	Memristor effect in GeO[SiO ₂] and GeO[SiO] solid alloys films. <i>Applied Physics Letters</i> , 2019 , 114, 233104	3.4	16
114	Structure of silicon/oxide and nitride/oxide interfaces. <i>Physics-Uspekhi</i> , 2009 , 52, 869-877	2.8	16
113	Electron and hole injection in metal-oxide-nitride-oxide-silicon structures. <i>Journal of Experimental and Theoretical Physics</i> , 2006 , 102, 810-820	1	16
112	Two-band conduction in TiO ₂ . <i>Physics of the Solid State</i> , 2006 , 48, 224-228	0.8	16
111	Multiphonon mechanism of the ionization of traps in Al ₂ O ₃ : Experiment and numerical simulation. <i>JETP Letters</i> , 2009 , 89, 506-509	1.2	15

110	Trap-assisted tunneling hole injection in SiO ₂ : Experiment and theory. <i>Journal of Experimental and Theoretical Physics</i> , 2009 , 109, 786-793	1	15
109	Charge transport mechanism in the metal nitride oxide silicon forming-free memristor structure. <i>Applied Physics Letters</i> , 2020 , 116, 203502	3-4	14
108	Charge transport in thin hafnium and zirconium oxide films. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2017 , 53, 184-189	0.6	14
107	Charge transport in dielectrics by tunneling between traps. <i>Journal of Experimental and Theoretical Physics</i> , 2011 , 112, 1026-1034	1	14
106	Wigner crystallization of electrons and holes in amorphous silicon nitride. Antiferromagnetic ordering of localized electrons and holes as a result of a resonance exchange interaction. <i>JETP Letters</i> , 1996 , 64, 531-537	1.2	14
105	Percolation conductivity in hafnium sub-oxides. <i>Applied Physics Letters</i> , 2014 , 105, 262903	3-4	13
104	Atomic and Electronic Structures of Traps in Silicon Oxide and Silicon Oxynitride. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2011 , 36, 129-147	10.1	13
103	Ab initio simulation of the electronic structure of Ta ₂ O ₅ with oxygen vacancy and comparison with experiment. <i>Journal of Experimental and Theoretical Physics</i> , 2011 , 112, 1035-1041	1	13
102	Electronic structure of amorphous silicon oxynitride with different compositions. <i>Journal of Applied Physics</i> , 2009 , 105, 073706	2.5	13
101	Structure and electrophysical properties of boron nitride thin films. <i>Physica Status Solidi A</i> , 1976 , 34, 85-94		13
100	Charge transport mechanism in SiN _x -based memristor. <i>Applied Physics Letters</i> , 2019 , 115, 253502	3-4	13
99	High Performance All Nonmetal SiN Resistive Random Access Memory with Strong Process Dependence. <i>Scientific Reports</i> , 2020 , 10, 2807	4-9	12
98	Electronic structure and charge transport in nonstoichiometric tantalum oxide. <i>Nanotechnology</i> , 2018 , 29, 264001	3-4	12
97	Cathodo- and photoluminescence increase in amorphous hafnium oxide under annealing in oxygen. <i>Journal of Experimental and Theoretical Physics</i> , 2015 , 120, 710-715	1	12
96	ONO Structures and Oxynitrides in Modern Microelectronics: Material Science, Characterization and Application 251-295		12
95	The charge transport mechanism and electron trap nature in thermal oxide on silicon. <i>Applied Physics Letters</i> , 2016 , 109, 052901	3-4	12
94	Electronic structure of silicon oxynitride: Ab-initio and experimental study, comparison with silicon nitride. <i>Journal of Applied Physics</i> , 2011 , 110, 114103	2.5	11
93	Short-range order and luminescence in amorphous silicon oxynitride. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2000 , 80, 1857-1868		11

92	Charge transport mechanism in the forming-free memristor based on silicon nitride. <i>Scientific Reports</i> , 2021 , 11, 2417	4.9	11
91	Optical Properties of Nonstoichiometric Tantalum Oxide TaOx (x Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2018 , 124, 808-813	0.7	10
90	Multiphonon ionization of deep centers in amorphous silicon nitride: Experiment and numerical simulations. <i>JETP Letters</i> , 2003 , 77, 385-388	1.2	10
89	Unsteady silicon nitride conductivity in high electric fields. <i>Physica Status Solidi A</i> , 1978 , 48, 31-37		10
88	Impact of oxygen vacancy on the ferroelectric properties of lanthanum-doped hafnium oxide. <i>Applied Physics Letters</i> , 2020 , 117, 162901	3.4	10
87	Charge transport mechanism in periodic mesoporous organosilica low-k dielectric. <i>Applied Physics Letters</i> , 2019 , 115, 082904	3.4	9
86	Two-band conductivity of ZrO ₂ synthesized by molecular beam epitaxy. <i>JETP Letters</i> , 2005 , 81, 587-589	1.2	9
85	Conductance of amorphous germanium nitride films in high electric fields. <i>Physica Status Solidi A</i> , 1975 , 28, 387-393		9
84	Electronic structure and charge transport mechanism in a forming-free SiO ₂ -based memristor. <i>Nanotechnology</i> , 2020 , 31, 505704	3.4	9
83	Exceedingly High Performance Top-Gate P-Type SnO Thin Film Transistor with a Nanometer Scale Channel Layer. <i>Nanomaterials</i> , 2021 , 11,	5.4	9
82	High-Performance Top-Gate Thin-Film Transistor with an Ultra-Thin Channel Layer. <i>Nanomaterials</i> , 2020 , 10,	5.4	8
81	Electronic structure of stoichiometric and oxygen-deficient ferroelectric HfZrO. <i>Nanotechnology</i> , 2018 , 29, 194001	3.4	8
80	Electronic Structure of Oxygen Vacancies in the Orthorhombic Noncentrosymmetric Phase Hf _{0.5} Zr _{0.5} O ₂ . <i>JETP Letters</i> , 2018 , 107, 55-60	1.2	8
79	Dispersion of the refractive index in high-k dielectrics. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2017 , 123, 728-732	0.7	8
78	Atomic and electronic structures of lutetium oxide Lu ₂ O ₃ . <i>Journal of Experimental and Theoretical Physics</i> , 2013 , 116, 323-329	1	8
77	Bipolar conductivity in nanocrystallized TiO ₂ . <i>Applied Physics Letters</i> , 2012 , 101, 032101	3.4	8
76	Single band electronic conduction in hafnium oxide prepared by atomic layer deposition. <i>Microelectronics Reliability</i> , 2007 , 47, 36-40	1.2	8
75	Capturing properties of a threefold coordinated silicon atom in silicon nitride: Positive correlation energy model. <i>Physics of the Solid State</i> , 2003 , 45, 2031-2035	0.8	8

74	Wigner crystallization and a resonance exchange mechanism for electrons localized in an amorphous insulator with a high trap density. <i>JETP Letters</i> , 1996 , 64, 525-530	1.2	8
73	Silicon Nitride on Si: Electronic Structure for Flash Memory Devices. <i>Materials and Energy</i> , 2016 , 273-322		8
72	Atomic and electronic structure of ferroelectric La-doped HfO ₂ films. <i>Materials Research Express</i> , 2019 , 6, 036403	1.7	8
71	Origin of the blue luminescence band in zirconium oxide. <i>Physics of the Solid State</i> , 2015 , 57, 1347-1351	0.8	7
70	SiSi bond as a deep trap for electrons and holes in silicon nitride. <i>JETP Letters</i> , 2016 , 103, 171-174	1.2	7
69	Improved Device Distribution in High-Performance SiN Resistive Random Access Memory via Arsenic Ion Implantation. <i>Nanomaterials</i> , 2021 , 11,	5.4	7
68	The atomic structure and chemical composition of HfO _x (x Materials Research Express, 2016 , 3, 085008	1.7	7
67	Leakage Currents Mechanism in Thin Films of Ferroelectric Hf _{0.5} Zr _{0.5} O ₂ . <i>ECS Transactions</i> , 2017 , 75, 123-129	1	6
66	Critical properties and charge transport in ethylene bridged organosilica low- κ dielectrics. <i>Journal of Applied Physics</i> , 2020 , 127, 195105	2.5	6
65	Electronic structure of SiN _x . <i>JETP Letters</i> , 2014 , 98, 709-712	1.2	6
64	Study of the atomic and electronic structures of amorphous silicon nitride and defects in it. <i>JETP Letters</i> , 2011 , 94, 202-205	1.2	6
63	MINDO/3 calculation of the electronic structure of silicon nitride. <i>Physics of the Solid State</i> , 1997 , 39, 1191-1196	0.8	6
62	A new memory element based on silicon nanoclusters in a ZrO ₂ insulator with a high permittivity for electrically erasable read-only memory. <i>Semiconductors</i> , 2005 , 39, 716	0.7	6
61	Charge transport mechanism in La:HfO ₂ . <i>Applied Physics Letters</i> , 2020 , 117, 142901	3.4	6
60	Local Oscillations of Silicon-Silicon Bonds in Silicon Nitride. <i>Technical Physics Letters</i> , 2018 , 44, 424-427	0.7	6
59	Three-Dimensional Non-Linear Complex Model of Dynamic Memristor Switching. <i>ECS Transactions</i> , 2017 , 75, 95-104	1	5
58	Nanoscale potential fluctuations in nonstoichiometric tantalum oxide. <i>Nanotechnology</i> , 2018 , 29, 425202	0.4	5
57	Quantum confinement and electron spin resonance characteristics in Si-implanted silicon oxide films. <i>Journal of Applied Physics</i> , 2011 , 109, 084502	2.5	5

56	Wigner crystallization due to electrons localized at deep traps in two-dimensional amorphous dielectric. <i>Applied Physics Letters</i> , 2010 , 96, 263510	3.4	5
55	The Evolution of the Conductivity and Cathodoluminescence of the Films of Hafnium Oxide in the Case of a Change in the Concentration of Oxygen Vacancies. <i>Physics of the Solid State</i> , 2018 , 60, 2050-2057	0.8	5
54	Quantization of the electronic spectrum and localization of electrons and holes in silicon quantum dots. <i>Physics of the Solid State</i> , 2011 , 53, 860-863	0.8	4
53	Electronic structure of silicon nitride according to ab initio quantum-chemical calculations and experimental data. <i>Journal of Experimental and Theoretical Physics</i> , 2010 , 111, 659-666	1	4
52	On the conductivity of amorphous silicon nitride in high electric fields. <i>Physica Status Solidi A</i> , 1977 , 44, K167-K170		4
51	Atomic and Electronic Structures of a-SiN _x :H. <i>Journal of Experimental and Theoretical Physics</i> , 2019 , 129, 924-934	1	4
50	Optical Properties of Nonstoichiometric Silicon Oxide SiO _x (x Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2019 , 127, 836-840	0.7	4
49	Oxygen vacancies in zirconium oxide as the blue luminescence centres and traps responsible for charge transport: Part II Films. <i>Materialia</i> , 2021 , 15, 100980	3.2	4
48	Structure of Hf _{0.9} La _{0.1} O ₂ Ferroelectric Films Obtained by the Atomic Layer Deposition. <i>JETP Letters</i> , 2019 , 109, 116-120	1.2	3
47	Nanoscale Potential Fluctuation in Non-Stoichiometric Hafnium Suboxides. <i>ECS Transactions</i> , 2015 , 69, 237-241	1	3
46	Charge carrier transport mechanism in high- κ dielectrics and their based resistive memory cells. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2014 , 50, 310-314	0.6	3
45	Large-scale potential fluctuations caused by SiO _x compositional inhomogeneity. <i>Physics of the Solid State</i> , 2012 , 54, 493-498	0.8	3
44	Evolution of the conductivity type in germania by varying the stoichiometry. <i>Applied Physics Letters</i> , 2013 , 103, 232904	3.4	3
43	Multiphonon trap ionization transport in nonstoichiometric SiN _x . <i>Materials Research Express</i> , 2019 , 6, 036304	1.7	3
42	Nanoscale Potential Fluctuations in Zirconium Oxide and the Flash Memory Based on Electron and Hole Localization. <i>Advanced Electronic Materials</i> , 2018 , 4, 1700592	6.4	2
41	Wigner crystallization of electrons in deep traps in a two-dimensional dielectric. <i>Journal of Experimental and Theoretical Physics</i> , 2011 , 112, 479-481	1	2
40	Electronic structure of oxygen vacancy and poly-vacancy in δ -band δ -Al ₂ O ₃ 2010 ,		2
39	Hole trapping on the twofold-coordinated silicon atom in SiO ₂ . <i>Physics of the Solid State</i> , 2002 , 44, 1028-1030	0.8	2

38	High-Permittivity-Insulator EEPROM Cell Using Al ₂ O ₃ or ZrO ₂ . <i>Russian Microelectronics</i> , 2003 , 32, 69-74	0.5	2
37	High-field conductivity of amorphous insulator films. <i>Physica Status Solidi A</i> , 1979 , 52, 47-57		2
36	Multiphonon Ionization of Deep Centers in Amorphous Boron Nitride. <i>JETP Letters</i> , 2021 , 114, 433-436	1.2	2
35	Charge Transport Mechanism in a Formless Memristor Based on Silicon Nitride. <i>Russian Microelectronics</i> , 2020 , 49, 372-377	0.5	2
34	Optical Properties of the SiO _x (x Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2020 , 128, 1577-1582	0.7	2
33	Oxygen vacancies in zirconium oxide as the blue luminescence centres and traps responsible for charge transport: Part I Crystals. <i>Materialia</i> , 2021 , 15, 100979	3.2	2
32	Nanosized Potential Fluctuations in SiO _x Synthesized by Plasma-Enhanced Chemical Vapor Deposition. <i>Physics of the Solid State</i> , 2019 , 61, 2560-2568	0.8	2
31	Charge Transport Mechanism and Trap Origin in Methyl-Terminated Organosilicate Glass Low- κ Dielectrics. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021 , 218, 2000654	1.6	2
30	Charge Transport Mechanism in Atomic Layer Deposited Oxygen-Deficient TaO _x Films. <i>Physica Status Solidi (B): Basic Research</i> , 2021 , 258, 2000432	1.3	2
29	Atomic and Electronic Structures of Metal-Rich Noncentrosymmetric ZrO _x . <i>JETP Letters</i> , 2018 , 108, 226-230	2.3	2
28	Electronic Structure of Amorphous SiO _x with Variable Composition. <i>JETP Letters</i> , 2018 , 108, 127-131	1.2	2
27	Atomic Structure and Optical Properties of Plasma Enhanced Chemical Vapor Deposited SiCOH Low-k Dielectric Film. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2021 , 129, 645-651	0.7	2
26	Mechanism of stress induced leakage current in Si ₃ N ₄ . <i>Materials Research Express</i> , 2019 , 6, 076401	1.7	1
25	Charge transport in thin layers of ferroelectric Hf _{0.5} Zr _{0.5} O ₂ . <i>Russian Microelectronics</i> , 2016 , 45, 350-356	0.5	1
24	Multilayer graphene-based flash memory. <i>Russian Microelectronics</i> , 2016 , 45, 63-67	0.5	1
23	Short-Range Order and Charge Transport in SiO _x : Experiment and Numerical Simulation. <i>Technical Physics Letters</i> , 2018 , 44, 541-544	0.7	1
22	Nanoscale potential fluctuations and electron percolation in silicon oxide (SiO _x , x = 1.4, 1.6). <i>Materials Research Express</i> , 2019 , 6, 116409	1.7	1
21	Mechanism of charge transport of stress induced leakage current and trap nature in thermal oxide on silicon. <i>Journal of Physics: Conference Series</i> , 2017 , 864, 012003	0.3	1

20	Relaxation of the electric current in Si ₃ N ₄ : Experiment and numerical simulation. <i>Physics of the Solid State</i> , 2017 , 59, 47-52	0.8	1
19	Leakage currents mechanism in thin films of ferroelectric Hf _{0.5} Zr _{0.5} O ₂ . <i>Journal of Physics: Conference Series</i> , 2017 , 864, 012002	0.3	1
18	Interaction with charge carriers and the optical absorption spectrum of an associate formed by elementary defects (an oxygen vacancy and a silylene center) in SiO ₂ . <i>Physics of the Solid State</i> , 2004 , 46, 2021-2025	0.8	1
17	On the influence of illumination on charges trapped in MNOS structures. <i>Physica Status Solidi A</i> , 1976 , 38, K57-K59		1
16			
15	Atomic and Electronic Structure of SiO _x Films Obtained with Hydrogen Electron Cyclotron Resonance Plasma. <i>Journal of Experimental and Theoretical Physics</i> , 2020 , 131, 940-944	1	1
14	Silicon Nanocrystals and Amorphous Nanoclusters in SiO _x and SiN _x : Atomic, Electronic Structure, and Memristor Effects 2020 ,		1
13	Optical properties of nonstoichiometric ZrO _x according to spectroellipsometry data. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2016 , 121, 241-245	0.7	1
12	43.2: Invited Paper: High Mobility Oxide Complementary TFTs for System-on-Display and Three-Dimensional Brain-Mimicking IC. <i>Digest of Technical Papers SID International Symposium</i> , 2021 , 52, 292-294	0.5	1
11	Memory Properties of SiO _x - and SiN _x -Based Memristors. <i>Nanobiotechnology Reports</i> , 2021 , 16, 722-731		1
10	Bipolar conductivity in ferroelectric La:HfZrO films. <i>Applied Physics Letters</i> , 2021 , 118, 262903	3.4	0
9	The atomic and electronic structure of Hf _{0.5} Zr _{0.5} O ₂ and Hf _{0.5} Zr _{0.5} O ₂ :La films. <i>Journal of Science: Advanced Materials and Devices</i> , 2021 , 6, 595-595	4.2	0
8	Forming-Free Memristors Based on Hafnium Oxide Processed in Electron Cyclotron Resonance Hydrogen Plasma. <i>JETP Letters</i> , 2022 , 115, 79-83	1.2	0
7	Charge Transport in Nonstoichiometric SiO _x Obtained by Treatment of Thermal SiO ₂ in Hydrogen Plasma of Electronic-Cyclotron Resonance. <i>Russian Microelectronics</i> , 2022 , 51, 24-35	0.5	0
6	Enhancement of the electron-stimulated desorption from amorphous aluminum oxide films on silicon during an increase in the substrate temperature. <i>Technical Physics</i> , 2012 , 57, 693-696	0.5	
5	Electronic Structure of Si-Si Bond in Si ₃ N ₄ and SiO ₂ : Experiment and Simulation by Mindo/3. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 446, 169		
4	Charge Transport in Amorphous Silicon Nitride. <i>Journal of Experimental and Theoretical Physics</i> , 2021 , 133, 488-493	1	
3	Optical Properties of (ZrO ₂) _{1-x} (Y ₂ O ₃) _x (x= 0.037) Crystals Grown by Directional Crystallization of the Melt. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2020 , 128, 1963-1969	0.7	

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| 2 | Hot electrons in silicon oxide. <i>Uspekhi Fizicheskikh Nauk</i> , 2017 , 187, 971-979 | 0.5 |
| 1 | Charge Transport Mechanism in a PECVD Deposited Low-k SiOCH Dielectric. <i>Journal of Electronic Materials</i> , 2022 , 51, 2521-2527 | 1.9 |