Dmitri Pavlov

List of Publications by Year
in descending order

103	876	687220 13	526166 27
papers	citations	h-index	g-index

109	109	109	740
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Impact of metallic coating on the retention of 225Ac and its daugthers within coreâ€“shell nanocarriers. Journal of Colloid and Interface Science, 2022, 608, 2571-2583.	5.0	5
2	Influence of chemical nature of implanted atoms on photoluminescence of ion-synthesized 9R-Si hexagonal silicon. Materials Letters, 2022, 308, 131103.	1.3	2
3	Growth defects in GeSn/Ge/Si(001) epitaxial layers grown by hot wire chemical vapor deposition of Ge with co-evaporation of Sn. Journal of Crystal Growth, 2022, 578, 126421.	0.7	1
4	Resistive switching in metal-oxide memristive materials and devices. , 2022, , 33-78.		0
5	Technology and neuromorphic functionality of magnetron-sputtered memristive devices. , 2022, , 109-131.		0
6	Silicon-Compatible Memristive Devices Tailored by Laser and Thermal Treatments. Journal of Low Power Electronics and Applications, 2022, 12, 14.	1.3	3
7	Comparison of IIIâ€“V Heterostructures Grown on Ge/Si, Ge/SOI, and GaAs. Semiconductors, 2022, 56, 122-133.	0.2	1
8	Ion-Beam Synthesis of Gallium Oxide Nanocrystals in a SiO2/Si Dielectric Matrix. Nanomaterials, 2022, 12, 1840.	1.9	3
9	Noise-assisted persistence and recovery of memory state in a memristive spiking neuromorphic network. Chaos, Solitons and Fractals, 2021, 146, 110890.	2.5	76
10	A mechanism of effect of optical excitation on resistive switching in ZrO2(Y) films with Au nanoparticles. Journal Physics D: Applied Physics, 2021, 54, 485303.	1.3	4
11	Memristive Spike- Timing-Dependent Plasticity. , 2021, , .		3
12	Electrical Properties of Silicon-Oxide-Based Memristors on Silicon-on-Insulator Substrates. Nanobiotechnology Reports, 2021, 16, 745-754.	0.2	0
13	Investigation of resistive switching in Ag/Ge/Si(001) stack by conductive atomic force microscopy. Journal of Physics: Conference Series, 2021, 2086, 012043.	0.3	0
14	Multilayer Metalâ€Oxide Memristive Device with Stabilized Resistive Switching. Advanced Materials Technologies, 2020, 5, 1900607.	3.0	78
15	Growth of a Ge Layer on a Si/SiO2/Si(100) Structure by the Hot Wire Chemical Vapor Deposition. Semiconductors, 2020, 54, 1332-1335.	0.2	1
16	Circularly Polarized Electroluminescence of Spin LEDs with a Ferromagnetic (In, Fe)Sb Injector. Technical Physics Letters, 2020, 46, 691-694.	0.2	1
17	Photoluminescence of silicon at 1235Ânm produced by irradiation of SiO2/Si with Kr+ ions and subsequent high-temperature annealing. Surface and Coatings Technology, 2020, 386, 125496.	2.2	5
18	Electrophysical Characteristics of Multilayer Memristive Nanostructures Based on Yttria-Stabilized Zirconia and Tantalum Oxide. Technical Physics, 2020, 65, 284-290.	0.2	4

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19	Light-emitting hexagonal 9R-Si phase obtained by implantation of Kr⁺ ions in Si and SiO₂/Si. Journal of Physics: Conference Series, 2020, 1695, 012031.	0.3	1
20	Resistive Switching in Memristors Based on Ge/Si(001) Epitaxial Layers. Semiconductors, 2020, 54, 1833-1835.	0.2	2
21	Bipolar resistive switching in memristors based on Ge/Si(001) epitaxial layers. Journal of Physics: Conference Series, 2020, 1695, 012158.	0.3	2
22	High-temperature intrinsic ferromagnetism in heavily Fe-doped GaAs layers. Semiconductor Science and Technology, 2020, 35, 125032.	1.0	7
23	On the Combined Application of Raman Spectroscopy and Photoluminescence Spectroscopy for the Diagnostics of Multilayer Heterostructures. Semiconductors, 2019, 53, 1207-1210.	0.2	0
24	Studies of the Cross Section and Photoluminescence of a GaAs Layer Grown on a Si/Al2O3 Substrate. Semiconductors, 2019, 53, 1242-1245.	0.2	1
25	Diode Structures Based on (In, Fe)Sb/GaAs Magnetic Heterojunctions. Technical Physics Letters, 2019, 45, 668-671.	0.2	1
26	Yttria-stabilized zirconia cross-point memristive devices for neuromorphic applications. Microelectronic Engineering, 2019, 215, 110988.	1.1	61
27	Formation of epitaxial p-i-n structures on the basis of (In,Fe)Sb and (Ga,Fe)Sb diluted magnetic semiconductors layers. Journal of Magnetism and Magnetic Materials, 2019, 487, 165321.	1.0	8
28	Robustness of ferromagnetism in (In,Fe)Sb diluted magnetic semiconductor to variation of charge carrier concentration. Journal of Magnetism and Magnetic Materials, 2019, 485, 236-243.	1.0	9
29	The nature of transport and ferromagnetic properties of the GaAs structures with the Mn Î´-doped layer. Journal of Magnetism and Magnetic Materials, 2019, 478, 84-90.	1.0	7
30	Mechanism of formation of light-emitting silicon hexagonal phase 9R-Si. Journal of Physics: Conference Series, 2019, 1410, 012037.	0.3	1
31	Deep UV narrow-band photodetector based on ion beam synthesized indium oxide quantum dots in Al₂O₃ matrix. Nanotechnology, 2018, 29, 305603.	1.3	18
32	Ripplocation in graphite nanoplatelets during sonication assisted liquidÂphase exfoliation. Carbon, 2018, 129, 826-829.	5.4	27
33	Enhanced Solar-Blind Photodetection Performance of Encapsulated Ga₂O₃Nanocrystals in Al₂O₃Matrix. IEEE Sensors Journal, 2018, 18, 4046-4052.	2.4	11
34	Formation of hexagonal silicon regions in silicon. Journal of Physics: Conference Series, 2018, 1124, 022007.	0.3	1
35	Investigation of local charge accumulation in yttria stabilized zirconia films with Au nanoparticles by Scanning Kelvin Probe Microscopy. Journal of Physics: Conference Series, 2018, 1124, 081028.	0.3	0
36	Relation between the Electronic Properties and Structure of InAs/GaAs Quantum Dots Grown by Vapor-Phase Epitaxy. Semiconductors, 2018, 52, 1525-1528.	0.2	0

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37	Light-emitting 9R-Si phase formed by Kr+ ion implantation into SiO2/Si substrate. Applied Physics Letters, 2018, 113, .	1.5	14
38	Conductive Atomic Force Microscopy Study of the Resistive Switching in Yttria-Stabilized Zirconia Films with Au Nanoparticles. Scanning, 2018, 2018, 1-9.	0.7	4
39	X-Ray Photoelectron Spectroscopy of Stabilized Zirconia Films with Embedded Au Nanoparticles Formed under Irradiation with Gold Ions. Physics of the Solid State, 2018, 60, 598-602.	0.2	1
40	MOCVD Growth of InGaAs/GaAs/AlGaAs Laser Structures with Quantum Wells on Ge/Si Substrates. Crystals, 2018, 8, 311.	1.0	11
41	Effect of Boron Impurity on the Light-Emitting Properties of Dislocation Structures Formed in Silicon by Si+ Ion Implantation. Semiconductors, 2018, 52, 843-848.	0.2	6
42	GaAs/Ge/Si epitaxial substrates: Development and characteristics. AIP Advances, 2017, 7, .	0.6	20
43	An oscillator based on a single Au nanocluster. Journal of Applied Physics, 2017, 121, 014308.	1.1	3
44	Influence of the deposition and annealing temperatures on the luminescence of germanium nanocrystals formed in GeO x films and multilayer Ge/SiO2 structures. Physics of the Solid State, 2017, 59, 992-998.	0.2	0
45	Peculiarities of growing InGaAs/GaAs/AlGaAs laser structures by MOCVD on Ge/Si substrates. Semiconductors, 2017, 51, 1527-1530.	0.2	5
46	Features of the selective manganese doping of GaAs structures. Semiconductors, 2017, 51, 1415-1419.	0.2	1
47	Single-phase epitaxial InFeSb layers with a Curie temperature above room temperature. Physics of the Solid State, 2017, 59, 2220-2222.	0.2	4
48	High-temperature intrinsic ferromagnetism in the (In,Fe)Sb semiconductor. Journal of Applied Physics, 2017, 122, .	1.1	25
49	Effect of the cap-layer composition on the electronic properties of InAs/GaAs quantum dots. Semiconductors, 2017, 51, 1395-1398.	0.2	0
50	Formation of hexagonal 9R silicon polytype by ion implantation. Technical Physics Letters, 2017, 43, 767-769.	0.2	8
51	Electrically pumped InGaAs/GaAs quantum well microdisk lasers directly grown on Si(100) with Ge/GaAs buffer. Optics Express, 2017, 25, 16754.	1.7	13
52	Filamentary model of bipolar resistive switching in capacitor-like memristive nanostructures on the basis of yttria-stabilised zirconia. International Journal of Nanotechnology, 2017, 14, 604.	0.1	24
53	Resistive switching in the Au/Zr/ZrO₂-Y₂O3/TiN/Ti memristive devices deposited by magnetron sputtering. Journal of Physics: Conference Series, 2016, 741, 012174.	0.3	11
54	Monolithically integrated InGaAs/GaAs/AlGaAs quantum well laser grown by MOCVD on exact Ge/Si(001) substrate. Applied Physics Letters, 2016, 109, .	1.5	24

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55	Forming dense arrays of gold nanoparticles in thin films of yttria stabilized zirconia by magnetron sputtering. Technical Physics Letters, 2016, 42, 36-39.	0.2	13
56	Layer-by-layer composition and structure of silicon subjected to combined gallium and nitrogen ion implantation for the ion synthesis of gallium nitride. Semiconductors, 2016, 50, 271-275.	0.2	7
57	On the crystal structure and thermoelectric properties of thin Si1â€“x Mn x films. Semiconductors, 2016, 50, 1453-1457.	0.2	1
58	Fieldâ€•and irradiationâ€‰nduced phenomena in memristive nanomaterials. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 870-881.	0.8	92
59	Fabrication of MnGa/GaAs contacts for optoelectronics and spintronics applications. Semiconductors, 2016, 50, 1443-1448.	0.2	0
60	Distribution of D1 dislocation luminescence centers in Si+-implanted silicon and the photoluminescence model. Modern Electronic Materials, 2015, 1, 33-37.	0.2	3
61	Application of cobalt in spin light-emitting Schottky diodes with InGaAs/GaAs quantum wells. Journal of Surface Investigation, 2015, 9, 706-709.	0.1	9
62	Growth of light-emitting SiGe heterostructures on strained silicon-on-insulator substrates with a thin oxide layer. Semiconductors, 2015, 49, 1104-1110.	0.2	3
63	Ion-beam synthesis of GaN in silicon. Journal of Physics: Conference Series, 2015, 643, 012082.	0.3	2
64	Formation of Au4Zr nanocrystals in yttria stabilized zirconia in the course of implantation of gold ions. Technical Physics Letters, 2015, 41, 543-546.	0.2	4
65	Localization of dislocation-related luminescence centers in self-ion implanted silicon and effect of additional boron ion doping. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 84-88.	0.8	4
66	Influence of the technological parameters of growth on the characteristics of double tunnel-coupled InGaAs/GaAs quantum wells. Semiconductors, 2015, 49, 55-59.	0.2	1
67	Bipolar resistive switching and charge transport in silicon oxide memristor. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 194, 48-54.	1.7	75
68	Epitaxial growth of hexagonal silicon polytypes on sapphire. Semiconductors, 2015, 49, 95-98.	0.2	7
69	Effect of thermal annealing on the emission properties of heterostructures containing a quantum-confined GaAsSb layer. Semiconductors, 2015, 49, 9-12.	0.2	1
70	Study of the crystal structure of silicon nanoislands on sapphire. Semiconductors, 2015, 49, 154-156.	0.2	0
71	Structural, optical, and current investigations of superlattices with a complex AlGaAs-based unit cell. Semiconductors, 2015, 49, 118-123.	0.2	1
72	Distribution of elastic strains appearing in gallium arsenide as a result of doping with isovalent impurities of phosphorus and indium. Semiconductors, 2015, 49, 1-3.	0.2	2

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73	Impact of growth and annealing conditions on the parameters of Ge/Si(001) relaxed layers grown by molecular beam epitaxy. Semiconductors, 2015, 49, 1415-1420.	0.2	23
74	Self-assembled nanocrystals discovered in Chelyabinsk meteorite. Scientific Reports, 2015, 4, 4280.	1.6	5
75	Epitaxial growth of MnGa/GaAs layers for diodes with spin injection. Physics of the Solid State, 2014, 56, 2131-2134.	0.2	3
76	Investigation of deformations and strain fields in silicon matrix structures embedded with vertically stacked Ge(Si) self-assembled islands. Applied Physics Letters, 2014, 105, .	1.5	5
77	Annealing-induced evolution of the structural and morphological properties of a multilayer nanoperiodic SiO x /ZrO2 system containing Si nanoclusters. Semiconductors, 2014, 48, 42-45.	0.2	8
78	Effect of ion doping on the dislocation-related photoluminescence in Si+-implanted silicon. Semiconductors, 2014, 48, 199-203.	0.2	7
79	Anomalous Hall effect in two-phase semiconductor structures: The role of ferromagnetic inclusions. Physical Review B, 2014, 90, .	1.1	12
80	Effect of ion irradiation on the structure and luminescence characteristics of porous silicon impregnated with tungsten-telluride glass doped by Er and Yb impurities. Physics of the Solid State, 2014, 56, 631-634.	0.2	1
81	Capacitors with nonlinear characteristics based on stabilized zirconia with built-in gold nanoparticles. Technical Physics Letters, 2014, 40, 369-371.	0.2	13
82	Structure and luminescence of silicon irradiated by protons. Inorganic Materials: Applied Research, 2014, 5, 133-137.	0.1	0
83	Quenching the photoluminescence from Si nanocrystals of smaller sizes in dense ensembles due to migration processes. Journal of Luminescence, 2014, 155, 1-6.	1.5	8
84	Thermal evolution of the morphology, structure, and optical properties of multilayer nanoperiodic systems produced by the vacuum evaporation of SiO and SiO2. Semiconductors, 2013, 47, 481-486.	0.2	15
85	Analysis of the growth dependences of silicon-on-sapphire heteroepitaxy. Semiconductors, 2013, 47, 865-869.	0.2	0
86	Growth model of silicon nanoislands on sapphire. Semiconductors, 2013, 47, 1595-1597.	0.2	2
87	A method for determining the state of the silicon-sapphire boundary in thin silicon-on-sapphire layers. Russian Microelectronics, 2013, 42, 529-531.	0.1	0
88	Influence of the ion synthesis and ion doping regimes on the effect of sensitization of erbium emission by silicon nanoclusters in silicon dioxide films. Physics of the Solid State, 2013, 55, 2361-2367.	0.2	0
89	Influence of ion irradiation on the morphology, structure, and optical properties of gold nanoparticles synthesized in SiO2 and Al2O3 dielectric matrices. Journal of Surface Investigation, 2012, 6, 681-687.	0.1	1
90	Investigation of silicon-on-sapphire structures by means of TEM. Bulletin of the Russian Academy of Sciences: Physics, 2012, 76, 1002-1004.	0.1	3

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91	Tunnel-coupled InGaAs/GaAs quantum wells: Structure, composition, and energy spectrum. Semiconductors, 2012, 46, 1476-1480.	0.2	5
92	Peculiarities in the formation of gold nanoparticles by ion implantation in stabilized zirconia. Technical Physics Letters, 2012, 38, 185-187.	0.2	9
93	Growing nanocrystalline silicon on sapphire by molecular beam epitaxy. Technical Physics Letters, 2010, 36, 548-550.	0.2	5
94	Sapphire surface preparation for the growth of silicon layers by molecular-beam epitaxy. Inorganic Materials, 2010, 46, 693-702.	0.2	0
95	<title>Molecular-beam epitaxy of ultrathin Si films on sapphire</title>. , 2008, , .		1
96	Structural perfection of heteroepitaxial silicon layers grown on sapphire by sublimation-source molecular beam epitaxy. Inorganic Materials, 2007, 43, 331-337.	0.2	1
97	Heteroepitaxy of Erbium-Doped Silicon Layers on Sapphire Substrates. Physics of the Solid State, 2005, 47, 89.	0.2	2
98	Structural and photoluminescence properties of heteroepitaxial silicon-on-sapphire layers. Physics of the Solid State, 2004, 46, 10-12.	0.2	2
99	Hydrogen sensitivity of a silicon Schottky diode increased by modification of the semiconductor surface microrelief. Technical Physics Letters, 2002, 28, 355-356.	0.2	0
100	Nonmonotonic character of the growth-temperature dependence of the resistance of polycrystalline silicon films. Semiconductors, 1998, 32, 562-564.	0.2	1
101	Structure and electrical conductivity of polycrystalline silicon films grown by molecularbeam deposition accompanied by low-energy ion bombardment of the growth surface. Semiconductors, 1997, 31, 237-240.	0.2	0
102	Structure and properties of amorphous silicon doped with isovalent impurities. Physica Status Solidi A, 1989, 116, 697-702.	1.7	0
103	The Properties of Amorphous Silicon Doped with Isovalent Impurities. Physica Status Solidi (B): Basic Research, 1987, 142, K125.	0.7	1