Vladimir Chaldyshev

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2055037/publications.pdf

Version: 2024-02-01

122 papers	873 citations	567144 15 h-index	642610 23 g-index
122 all docs	122 docs citations	122 times ranked	428 citing authors

#	Article	IF	Citations
1	Molecular beam epitaxy growth and characterization of thin (<2 mu m) GaSb layers on GaAs(100) substrates. Semiconductor Science and Technology, 1993, 8, 347-356.	1.0	44
2	Investigation of dislocation loops associated with Asâ€“Sb nanoclusters in GaAs. Journal of Applied Physics, 2005, 97, 024309.	1.1	37
3	Local stresses induced by nanoscale Asâ€“Sb clusters in GaAs matrix. Applied Physics Letters, 2002, 80, 377-379.	1.5	32
4	Determination of stress, strain, and elemental distribution within In(Ga)As quantum dots embedded in GaAs using advanced transmission electron microscopy. Applied Physics Letters, 2013, 102, .	1.5	32
5	Resonant optical reflection by a periodic system of the quantum well excitons at the second quantum state. Applied Physics Letters, 2011, 98, 073112.	1.5	30
6	Inâ€“Ga intermixing in low-temperature grown GaAs delta doped with In. Applied Physics Letters, 1999, 74, 1442-1444.	1.5	28
7	Enhanced precipitation of excess As on antimony delta layers in low-temperature-grown GaAs. Applied Physics Letters, 1999, 74, 1588-1590.	1.5	28
8	Optical lattices of InGaN quantum well excitons. Applied Physics Letters, 2011, 99, 251103.	1.5	27
9	Two-dimensional precipitation of As clusters due to indium delta-doping of GaAs films grown by molecular beam epitaxy at low temperature. Semiconductor Science and Technology, 1997, 12, 51-54.	1.0	26
10	Enhanced Asâ€“Sb intermixing of GaSb monolayer superlattices in low-temperature grown GaAs. Applied Physics Letters, 2001, 79, 1294-1296.	1.5	26
11	Stress relaxation scenario for buried quantum dots. Physical Review B, 2009, 79, .	1.1	25
12	Two-dimensional organization of As clusters in GaAs. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 88, 195-204.	1.7	23
13	Nanometer-size atomic clusters in semiconductorsâ€”a new approach to tailoring material properties. Semiconductors, 1998, 32, 457-465.	0.2	22
14	Enhanced arsenic excess in low-temperature grown GaAs due to indium doping. Applied Physics Letters, 1997, 70, 3146-3148.	1.5	18
15	Elastic behavior of a spherical inclusion with a given uniaxial dilatation. Physics of the Solid State, 2002, 44, 2240-2250.	0.2	17
16	Optical reflection and contactless electroreflection from GaAlAs layers with periodically arranged GaAs quantum wells. Semiconductors, 2006, 40, 1432-1435.	0.2	17
17	Elastic-energy relaxation in heterostructures with strained nanoinclusions. Physics of the Solid State, 2007, 49, 667-674.	0.2	16
18	Resonance reflection of light by a periodic system of excitons in GaAs/AlGaAs quantum wells. Semiconductors, 2012, 46, 1016-1019.	0.2	16

#	Article	IF	Citations
19	Room temperature exciton-polariton resonant reflection and suppressed absorption in periodic systems of InGaN quantum wells. Journal of Applied Physics, 2017, 121, 133101.	1.1	14
20	Structural transformations in low-temperature grown GaAs:Sb. Journal Physics D: Applied Physics, 2001, 34, A15-A18.	1.3	13
21	Formation of dislocation defects in the process of burying of InAs quantum dots into GaAs. Semiconductors, 2009, 43, 1387-1393.	0.2	13
22	High-resolution x-ray diffraction study of InAs-GaAs superlattices grown by molecular-beam epitaxy at low temperature. Semiconductors, 1998, 32, 19-25.	0.2	12
23	Micro-Raman investigation of thin lateral epitaxial overgrown GaN/sapphire(0001) films. Journal of Applied Physics, 2002, 92, 6601-6606.	1.1	12
24	Effect of annealing on the nonequilibrium carrier lifetime in GaAs grown at low temperatures. Semiconductors, 2013, 47, 1137-1140.	0.2	12
25	Resonance Bragg structure with double InGaN quantum wells. Physics of the Solid State, 2013, 55, 1817-1820.	0.2	12
26	FrÃ¶hlich resonance in the AsSb/AlGaAs system. Physics of the Solid State, 2014, 56, 1952-1956.	0.2	12
27	Resonant optical properties of AlGaAs/GaAs multiple-quantum-well based Bragg structure at the second quantum state. Journal of Applied Physics, 2017, 121, 103101.	1.1	12
28	Indium layers in low-temperature gallium arsenide: Structure and how it changes under annealing in the temperature range 500â€“700 Â°C. Semiconductors, 1998, 32, 683-688.	0.2	10
29	GaAs structures with InAs and As quantum dots produced in a single molecular beam epitaxy process. Semiconductors, 2009, 43, 1617-1621.	0.2	10
30	Optical properties of GaAs structures containing a periodic system of layers of AsSb metal nanoinclusions. Semiconductors, 2012, 46, 1291-1295.	0.2	10
31	Influence of the initial supersaturation of solute atoms on the size of nanoparticles grown by an Ostwald ripening mechanism. Journal of Applied Physics, 2007, 102, .	1.1	9
32	Modulation optical spectroscopy of excitons in structures with GaAs multiple quantum wells separated by tunneling-nontransparent barriers. Semiconductors, 2007, 41, 1434-1438.	0.2	9
33	Experimental evaluation of the carrier lifetime in GaAs grown at low temperature. Semiconductors, 2012, 46, 619-621.	0.2	9
34	Metallic AsSb nanoinclusions strongly enriched by Sb in AlGaAsSb metamaterial. Journal of Applied Physics, 2019, 125, 145106.	1.1	9
35	Absorption and photoluminescence of epitaxial quantum dots in the near field of silver nanostructures. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2017, 84, 459.	0.2	9
36	Bistability of charge accumulated in low-temperature-grown GaAs. Applied Physics Letters, 1998, 73, 2796-2798.	1.5	8

#	Article	IF	Citations
37	Special frequencies in the optical reflectance spectra of resonant Bragg structures. Physics of the Solid State, 2006, 48, 1814-1819.	0.2	8
38	Ostwald ripening in two-dimensional and three-dimensional systems of As clusters in low temperature grown GaAs films. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 238, 148-151.	2.6	7
39	Structure and properties of InGaAs layers grown by low-temperature molecular-beam epitaxy. Semiconductors, 1999, 33, 824-829.	0.2	7
40	Low-temperature molecular beam epitaxy of GaAs: Influence of crystallization conditions on structure and properties of layers. Crystallography Reports, 2002, 47, S118-S127.	0.1	7
41	Elastic fields and physical properties of surface quantum dots. Physics of the Solid State, 2011, 53, 2091-2102.	0.2	7
42	Plasmon resonance in new AsSbâ€“AlGaAs metalâ€“semiconductor metamaterials. Semiconductors, 2015, 49, 1587-1591.	0.2	7
43	Optical lattices of excitons in InGaN/GaN quantum well systems. Semiconductors, 2015, 49, 4-8.	0.2	7
44	Resonant Bragg structures based on III-nitrides. Journal of Materials Research, 2015, 30, 603-608.	1.2	7
45	Long coherent dynamics of localized excitons in (In,Ga)N/GaN quantum wells. Physical Review B, 2018, 98, .	1.1	7
46	Arsenic cluster superlattice in gallium arsenide grown by low-temperature molecular-beam epitaxy. Semiconductors, 1998, 32, 1036-1039.	0.2	6
47	As cluster array formation in GaAs grown by molecular-beam epitaxy at a low temperature and Î´-doped with phosphorus. Semiconductors, 2009, 43, 266-268.	0.2	6
48	An (AlGaAs/GaAs/AlGaAs)60 resonant Bragg structure based on the second quantum-confinement level of heavy-hole excitons in quantum wells. Semiconductors, 2010, 44, 1222-1226.	0.2	6
49	Electron microscopy of GaAs Structures with InAs and as quantum dots. Semiconductors, 2011, 45, 1580-1582.	0.2	6
50	Electron microscopy of GaAs-based structures with InAs and As quantum dots separated by an AlAs barrier. Semiconductors, 2013, 47, 1185-1192.	0.2	6
51	Structural transformations in the low-temperature grown GaAs with superlattices of Sb and P Î´-layers. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2013, 69, 30-35.	0.5	6
52	Ordered arrays of arsenic clusters coincided with InAs/GaAs superlattices grown by low-temperature MBE. Journal of Crystal Growth, 1999, 201-202, 260-262.	0.7	5
53	Micro-raman investigation of the n-dopant distribution in lateral epitaxial overgrown GaN/sapphire (0001). Journal of Electronic Materials, 2002, 31, 631-634.	1.0	5
54	Title is missing!. Russian Physics Journal, 2002, 45, 735-752.	0.2	5

#	Article	IF	Citations
55	Optical spectroscopy of a semi-insulating GaAs/AlGaAs multiple quantum well system near double excitonâ€“polariton and Bragg resonance. Journal of Materials Science: Materials in Electronics, 2008, 19, 699-703.	1.1	5
56	High-resolution X-ray diffraction studies of the GaAs structures grown at a low temperature and periodically Î´-doped with antimony and phosphorus. Semiconductors, 2009, 43, 1078-1085.	0.2	5
57	Optical reflection from the Bragg lattice of AsSb metal nanoinclusions in an AlGaAs matrix. Semiconductors, 2013, 47, 1046-1050.	0.2	5
58	Epitaxial InGaAs Quantum Dots in Al0.29Ga0.71As Matrix: Intensity and Kinetics of Luminescence in the Near Field of Silver Nanoparticles. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 617 Td	0.2	5
59	Clusters and the Nature of Superconductivity in Ltmbe-GaAs. Materials Research Society Symposia Proceedings, 1993, 325, 401.	0.1	4
60	Properties of tellurium-doped gallium antimonide single crystals grown from nonstoichiometric melt. Semiconductors, 1997, 31, 806-808.	0.2	4
61	Influence of indium doping on the formation of silicon-(gallium vacancy) complexes in gallium arsenide grown by molecular-beam epitaxy at low temperatures. Semiconductors, 1999, 33, 1080-1083.	0.2	4
62	Accumulation of majority charge carriers in GaAs layers containing arsenic nanoclusters. Semiconductors, 2000, 34, 1068-1072.	0.2	4
63	Effect of a low-temperature-grown GaAs layer on InAs quantum-dot photoluminescence. Semiconductors, 2016, 50, 1499-1505.	0.2	4
64	Optical spectroscopy of a resonant Bragg structure with InGaN/GaN quantum wells. Semiconductors, 2016, 50, 1431-1434.	0.2	4
65	Carrier localization in self-organized quantum dots: An interplay between quantum and solid mechanics. Applied Physics Letters, 2020, 117, .	1.5	4
66	Experimentally-Verified Modeling of InGaAs Quantum Dots. Nanomaterials, 2022, 12, 1967.	1.9	4
67	Vapour phase epitaxial grown GaAs films with a very low deep level concentration. Journal of Crystal Growth, 1995, 146, 246-250.	0.7	3
68	Silicon and phosphorus co-implantation into undoped and indium-doped GaAs substrates. Semiconductors, 1997, 31, 1217-1220.	0.2	3
69	Doping of GaAs layers with Si under conditions of low-temperature molecular beam epitaxy. Semiconductors, 2002, 36, 953-957.	0.2	3
70	Effect of isovalent doping with phosphorus on the cluster formation in gallium arsenide grown by molecular-beam epitaxy at a relatively low temperature. Semiconductors, 2006, 40, 758-762.	0.2	3
71	Structural study of low-temperature grown superlattices of GaAs with delta-layers of Sb and P. Physica B: Condensed Matter, 2009, 404, 4970-4973.	1.3	3
72	Resonant Reflection of Light from an Excitonic Optical Grating Formed by 100 InGaN Quantum Wells. Semiconductors, 2021, 55, S49-S53.	0.2	3

#	Article	IF	Citations
73	Effect of isovalent indium doping on excess arsenic in gallium arsenide grown by molecular-beam epitaxy at low temperatures. Semiconductors, 1998, 32, 692-695.	0.2	2
74	Accumulation of electrons in GaAs layers grown at low temperatures and containing arsenic clusters. Semiconductors, 1998, 32, 1044-1047.	0.2	2
75	Defects in the GaAs and InGaAs layers grown by low-temperature molecular-beam epitaxy. Russian Physics Journal, 2006, 49, 1334-1343.	0.2	2
76	Study of multiple InAs/GaAs quantum-well structures by electroreflectance spectroscopy. Semiconductors, 2015, 49, 1400-1404.	0.2	2
77	Diffusion Blurring of GaAs Quantum Wells Grown at Low Temperature. Semiconductors, 2018, 52, 1704-1707.	0.2	2
78	Stress Relaxation Phenomena in Buried Quantum Dots. , 2008, , 297-336.		2
79	Fabrication and characterization of coupled ensembles of epitaxial quantum dots and metal nanoparticles supporting localized surface plasmons. , 2017, , .		2
80	Influence of Antimony Doping on Nanoscale Arsenic Clusters and Dislocation Loops in Low-Temperature Grown Gallium Arsenide Films. Materials Research Society Symposia Proceedings, 2000, 652, 1.	0.1	1
81	Capacitance study of electron traps in low-temperature-grown GaAs. Semiconductors, 2004, 38, 387-392.	0.2	1
82	Electron Traps in Thin Layers of Low-Temperature-Grown Gallium Arsenide with Asâ€"Sb Nanoclusters. Semiconductors, 2005, 39, 1013.	0.2	1
83	Zinc blende GaAs films grown on wurtzite GaNâˆ•sapphire templates. Applied Physics Letters, 2005, 86, 131916.	1.5	1
84	Resonant optical reflection by periodic systems of the GaAs/AlGaAs quantum well excitons. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1557-1559.	0.8	1
85	Effect of local structural defects on the precipitation of as in the vicinity of InAs quantum dots in a GaAs matrix. Semiconductors, 2014, 48, 1539-1543.	0.2	1
86	Measuring femtosecond lifetimes of free charge carriers in gallium arsenide. Technical Physics Letters, 2014, 40, 513-515.	0.2	1
87	Research of resonant light reflection by a periodic system of GaAs/AlGaAs quantum wells.. Journal of Physics: Conference Series, 2016, 738, 012060.	0.3	1
88	Bragg resonance in a system of AsSb plasmonic nanoinclusions in AlGaAs. Semiconductors, 2016, 50, 1595-1599.	0.2	1
89	Resonant optical studies of GaAs/AlGaAs Multiple Quantum Well based Bragg Structures at excited states. MRS Advances, 2019, 4, 651-659.	0.5	1
90	Sb-rich nanoinclusions in an AlGaAsSb metamaterial. MRS Advances, 2019, 4, 277-284.	0.5	1

#	Article	IF	Citations
91	Photoluminescence from InAs Quantum Dots Buried Under Lowâ€Temperatureâ€Grown GaAs. Physica Status Solidi (B): Basic Research, 2019, 256, 1800479.	0.7	1
92	Carrier Localization by a Quantum Dot in a Quantum Well. Physical Review Applied, 2021, 16, .	1.5	1
93	Optical reflection spectra of resonant photonic structures based on a system of 100 InGaN quantum wells. Journal of Physics: Conference Series, 2020, 1697, 012153.	0.3	1
94	Structural transformations in the low-temperature grown GaAs with superlattices of Sb and P Î´-layers. Acta Crystallographica Section B: Structural Science, 2013, 69, 30-35.	1.8	1
95	Spatial Ordering of As Clusters Due to Indium Delta-Doping of LTMBE GaAs. Materials Research Society Symposia Proceedings, 1995, 417, 135.	0.1	0
96	Study of Gallium and Antimony Cluster Formation Ã®n GaSb Bulk Crystals Grown from Nonstoichiometric Melts. Materials Science Forum, 1995, 196-201, 1797-1800.	0.3	0
97	Control of spatial distribution of As clusters in LT GaAs by indium delta doping. , 0, , .		0
98	Influence Of Donor, Acceptor, And Isovalent Impurity Doping On Arsenic Excess And Point Defects In Low Temperature Grown GaAs. Materials Research Society Symposia Proceedings, 1996, 442, 491.	0.1	0
99	Capacitance Spectroscopy of Thin GaAs Layers Grown by Molecular Beam Epitaxy at Low Temperatures. Solid State Phenomena, 1997, 57-58, 495-500.	0.3	0
100	Control of point defects and arsenic clusters in low-temperature grown GaAs by isovalent impurity doping. , 0, , .		0
101	Formation of n+-Layers in Undoped and Indium-Doped GaAs Wafers by Si and Si+P Ion Implantation. Physica Status Solidi A, 1997, 163, 81-86.	1.7	0
102	Structure and properties of epitaxial GaAs and InGaAs films grown by low-temperature molecular-beam epitaxy. Russian Physics Journal, 1998, 41, 885-893.	0.2	0
103	Reciprocal Space X-Ray Mapping and Transmission Electron Microscopic Studies of Coincided Î´-Inas and As-Cluster Superlattices in Gaas Films Grown by Molecular-Beam Epitaxy at Low Temperature. Materials Research Society Symposia Proceedings, 1999, 583, 143.	0.1	0
104	Majority carrier accumulation in low-temperature-grown GaAs layer inserted into n-and p-type matrices. , 0, , .		0
105	Enhanced intermixing in anion and cation sublattices of low-temperature grown GaAs. , 0, , .		0
106	Capacitance Spectroscopy of n-i-n and p-i-p GaAs Sandwich Structures with Nanoscale As Clusters in the i-Layers. Materials Research Society Symposia Proceedings, 2001, 699, 461.	0.1	0
107	Two- and three-dimensional arrays of nanoscale as clusters in low-temperature grown GaAs. , 0, , .		0
108	Excess arsenic and point defects in GaAS grown by molecular beam epitaxy at low temperatures. Journal of Structural Chemistry, 2004, 45, S88-S95.	0.3	0

#	Article	IF	Citations
109	A Study of Recombination Centers Related to Asâ€“Sb Nanoclusters in Low-Temperature Grown Gallium Arsenide. Semiconductors, 2005, 39, 33.	0.2	0
110	Elastic Stress Relaxation at Nanoscale: A Comprehensive Theoretical and Experimental Investigation of the Dislocation Loops Associated with As-Sb Nanoclusters in GaAs. Materials Research Society Symposia Proceedings, 2005, 864, 4381.	0.1	0
111	Elastic Energy Relaxation in Buried Quantum Dots. Materials Research Society Symposia Proceedings, 2006, 959, 1.	0.1	0
112	Phase Transformations in Non-stoichiometric GaAs with Sb and P Doping. Materials Research Society Symposia Proceedings, 2006, 979, 1.	0.1	0
113	Selfâ€organization of InAs and As quantum dots in GaAs by a combined molecular beam epitaxy process. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2698-2700.	0.8	0
114	Formation of complexes of quantum dots InAs and nanoclusters as in matrix GaAs by molecular beam epitaxy. , 2011, , .		0
115	Spatially correlated two-dimensional arrays of semiconductor and metal quantum dots in GaAs-based heterostructures. Semiconductors, 2015, 49, 1661-1664.	0.2	0
116	Modeling of the optical properties of a two-dimensional system of small conductive particles.. Journal of Physics: Conference Series, 2016, 738, 012059.	0.3	0
117	Resonant Optical Reflection from AsSbâ€“AlGaAs Metamaterials and Structures. Semiconductors, 2018, 52, 468-472.	0.2	0
118	Optical Properties of AlGaAs/GaAs Resonant Bragg Structure at the Second Quantum State. Semiconductors, 2018, 52, 447-451.	0.2	0
119	Resonant Bragg structures with GaN/AlGaN Quantum Wells. Journal of Physics: Conference Series, 2018, 1038, 012119.	0.3	0
120	HRXRD AND TEM STUDIES OF Î´-InAs AND As-CLUSTER SUPERLATTICES IN GaAs GROWN AT LOW TEMPERATURE. , 2001, , .		0
121	Epitaxial c-GaAs/h-GaN Heterostructures. Materials Research Society Symposia Proceedings, 2005, 892, 644.	0.1	0
122	EPMA Determination of Arsenic Excess in Low Temperature Grown GaAs. , 1998, , 187-189.		0