

Sergey Morozov

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.

90
papers

17,099
citations

14
h-index

98
g-index

98
ext. papers

18,707
ext. citations

1.9
avg, IF

5.88
L-index

#	Paper	IF	Citations
90	Quantum-Cascade Laser with Radiation Emission through a Textured Layer. <i>Semiconductors</i> , 2022 , 56, 1-4	0.7	
89	Calculation of the Resonance States of Coulomb Acceptors in Zero-Gap Semiconductors. <i>Semiconductors</i> , 2021 , 55, 537	0.7	1
88	Generation of Terahertz Radiation in InP:Fe Crystals Due to Second-Order Lattice Nonlinearity. <i>Semiconductors</i> , 2021 , 55, 785	0.7	
87	Toward Peltier-cooled mid-infrared HgCdTe lasers: Analyzing the temperature quenching of stimulated emission at ~6 μ m wavelength from HgCdTe quantum wells. <i>Journal of Applied Physics</i> , 2021 , 130, 214302	2.5	1
86	Mid-IR stimulated emission in Hg(Cd)Te/CdHgTe quantum well structures up to 200 K due to suppressed Auger recombination. <i>Laser Physics</i> , 2021 , 31, 015801	1.2	2
85	Photothermal Ionization Spectroscopy of Mercury Vacancies in HgCdTe Epitaxial Films. <i>JETP Letters</i> , 2021 , 113, 402-408	1.2	0
84	Auger recombination in narrow gap HgCdTe/CdHgTe quantum well heterostructures. <i>Journal of Applied Physics</i> , 2021 , 129, 133106	2.5	4
83	Express Characterization of the HgCdTe/CdHgTe Quantum Well Waveguide Heterostructures with the Quasi-Relativistic Carrier Dispersion Law by Room-Temperature Photoluminescence Spectroscopy. <i>Technical Physics Letters</i> , 2021 , 47, 154-157	0.7	1
82	Arsenic Doping Upon the Deposition of CdTe Layers from Dimethylcadmium and Diisopropyltellurium. <i>Semiconductors</i> , 2021 , 55, 7-13	0.7	0
81	Application of the Scattering Matrix Method for Calculation of Impurity States in Semiconductor Structures. <i>Technical Physics Letters</i> , 2021 , 47, 360-363	0.7	1
80	Calculation of the Temperature Dependence of the Coulomb-Acceptor State Energy in a Narrow-Gap HgCdTe Solid Solution. <i>Semiconductors</i> , 2021 , 55, 907-913	0.7	
79	Effect of Internal Optical Losses on the Generation of Mid-IR Stimulated Emission in Waveguide Heterostructures with HgCdTe/CdHgTe Quantum Wells. <i>Semiconductors</i> , 2021 , 55, 899-902	0.7	
78	Specific Growth Features of Nanostructures for Terahertz Quantum Cascade Lasers and Their Physical Properties. <i>Semiconductors</i> , 2020 , 54, 1092-1095	0.7	2
77	Investigation of Stimulated Emission from HgTe/CdHgTe Quantum-Well Heterostructures in the 3 μ m Atmospheric Transparency Window. <i>Semiconductors</i> , 2020 , 54, 1365-1370	0.7	
76	Fundamental Limits to Far-Infrared Lasing in Auger-Suppressed HgCdTe Quantum Wells. <i>ACS Photonics</i> , 2020 , 7, 98-104	6.3	13
75	Investigation of the Photosensitivity of Narrow-Gap and Gapless HgCdTe Solid Solutions in the Terahertz and Sub-Terahertz Range. <i>Semiconductors</i> , 2020 , 54, 1096-1102	0.7	0
74	Experimental Observation of s-Component of Superconducting Pairing in Thin Disordered HTSC Films Based on YBCO. <i>Physics of the Solid State</i> , 2020 , 62, 1598-1603	0.8	

73	Calculation of Wave Functions of Resonant Acceptor States in Narrow-Gap CdHgTe Compounds. <i>Semiconductors</i> , 2020 , 54, 827-831	0.7	3
72	Probing States of a Double Acceptor in CdHgTe Heterostructures via Optical Gating. <i>JETP Letters</i> , 2020 , 111, 575-581	1.2	2
71	Temperature limitations for stimulated emission in 3 μ m range due to threshold and non-threshold Auger recombination in HgTe/CdHgTe quantum wells. <i>Applied Physics Letters</i> , 2020 , 117, 083103	3.4	8
70	Continuous-Wave Stimulated Emission in the 10 μ m Range under Optical Excitation in HgCdTe/CdHgTe-QW Structures with Quasirelativistic Dispersion. <i>Semiconductors</i> , 2020 , 54, 1371-1375	0.7	1
69	Synthesis of Morphologically Developed InGaN Nanostructures on Silicon: Influence of the Substrate Temperature on the Morphological and Optical Properties. <i>Semiconductors</i> , 2020 , 54, 1075-1077	0.7	2
68	Investigation into Microwave Absorption in Semiconductors for Frequency-Multiplication Devices and Radiation-Output Control of Continuous and Pulsed Gyrotrons. <i>Semiconductors</i> , 2020 , 54, 1069-1074	0.7	2
67	Photoluminescence Spectra of InAs/GaInSb/InAs Quantum Wells in the Mid-Infrared Region. <i>Semiconductors</i> , 2020 , 54, 1119-1122	0.7	0
66	Second-Harmonic Generation of Subterahertz Gyrotron Radiation by Frequency Doubling in InP:Fe and Its Application for Magnetospectroscopy of Semiconductor Structures. <i>Semiconductors</i> , 2019 , 53, 1217-1221	0.7	4
65	Evolution of the Impurity Photoconductivity in CdHgTe Epitaxial Films with Temperature. <i>Semiconductors</i> , 2019 , 53, 1266-1271	0.7	1
64	Study of the Auger Recombination Energy Threshold in a Series of Waveguide Heterostructures with HgTe/Cd _{0.7} Hg _{0.3} Te QWs Near 14 μ m. <i>Semiconductors</i> , 2019 , 53, 1154-1157	0.7	4
63	Spectra of Double Acceptors in Layers of Barriers and Quantum Wells of HgTe/CdHgTe Heterostructures. <i>Semiconductors</i> , 2019 , 53, 1198-1202	0.7	0
62	Phase Diagrams of Thin Disordered Films Based on HTSC YBa ₂ Cu ₃ O _{7-x} in External Magnetic Fields. <i>Physics of the Solid State</i> , 2019 , 61, 1523-1528	0.8	3
61	Terahertz Spectroscopy of Two-Dimensional Semimetal in Three-Layer InAs/GaSb/InAs Quantum Well. <i>JETP Letters</i> , 2019 , 109, 96-101	1.2	0
60	Experimental Observation of Temperature-Driven Topological Phase Transition in HgTe/CdHgTe Quantum Wells. <i>Condensed Matter</i> , 2019 , 4, 27	1.8	2
59	Features of Photoluminescence of Double Acceptors in HgTe/CdHgTe Heterostructures with Quantum Wells in a Terahertz Range. <i>JETP Letters</i> , 2019 , 109, 657-662	1.2	6
58	Threshold energies of Auger recombination in HgTe/CdHgTe quantum well heterostructures with 30-70 meV bandgap. <i>Journal of Physics Condensed Matter</i> , 2019 , 31, 425301	1.8	4
57	Synthesis by Molecular Beam Epitaxy and Properties of InGaN Nanostructures of Branched Morphology on a Silicon Substrate. <i>Technical Physics Letters</i> , 2019 , 45, 1111-1113	0.7	4
56	Stimulated Emission at a Wavelength of 2.86 μ m from In(Sb, As)/In(Ga, Al)As/GaAs Metamorphic Quantum Wells under Optical Pumping. <i>JETP Letters</i> , 2019 , 110, 313-318	1.2	3

55	Temperature-Induced Topological Phase Transition in HgTe Quantum Wells. <i>Physical Review Letters</i> , 2018 , 120, 086401	7.4	28
54	Lowering the Lasing Threshold by Doping in Mid-Infrared Lasers Based on HgCdTe with HgTe Quantum Wells. <i>Semiconductors</i> , 2018 , 52, 1221-1224	0.7	3
53	Terahertz Photoluminescence of Double Acceptors in Bulky Epitaxial HgCdTe Layers and HgTe/CdHgTe Structures with Quantum Wells. <i>Journal of Experimental and Theoretical Physics</i> , 2018 , 127, 1125-1129	1	4
52	Radiative recombination in narrow gap HgTe/CdHgTe quantum well heterostructures for laser applications. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 495301	1.8	10
51	Effect of Features of the Band Spectrum on the Characteristics of Stimulated Emission in Narrow-Gap Heterostructures with HgCdTe Quantum Wells. <i>Semiconductors</i> , 2018 , 52, 1375-1379	0.7	4
50	Calculation of Multiply Charged States of Impurity-Defect Centers in Epitaxial Hg _{1-x} Cd _x Te Layers. <i>Semiconductors</i> , 2018 , 52, 1369-1374	0.7	4
49	Temperature-dependent terahertz spectroscopy of inverted-band three-layer InAs/GaSb/InAs quantum well. <i>Physical Review B</i> , 2018 , 97,	3.3	13
48	On the band spectrum in p-type HgTe/CdHgTe heterostructures and its transformation under temperature variation. <i>Semiconductors</i> , 2017 , 51, 1531-1536	0.7	5
47	Stimulated emission from HgCdTe quantum well heterostructures at wavelengths up to 19.5 μm . <i>Applied Physics Letters</i> , 2017 , 111, 192101	3.4	44
46	Temperature-driven single-valley Dirac fermions in HgTe quantum wells. <i>Physical Review B</i> , 2017 , 96,	3.3	23
45	Terahertz photoconductivity of double acceptors in narrow gap HgCdTe epitaxial films grown by molecular beam epitaxy on GaAs(013) and Si(013) substrates. <i>Semiconductor Science and Technology</i> , 2017 , 32, 095007	1.8	17
44	Investigation of HgCdTe waveguide structures with quantum wells for long-wavelength stimulated emission. <i>Semiconductors</i> , 2017 , 51, 1557-1561	0.7	6
43	Temperature-driven massless Kane fermions in HgCdTe crystals. <i>Nature Communications</i> , 2016 , 7, 12576	17.4	47
42	Observation of topological phase transition by terahertz photoconductivity in HgTe-based transistors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2016 , 13, 534-537		2
41	Giant negative photoconductivity of PbSnTe:In films with wavelength cutoff near 30 μm . <i>Semiconductors</i> , 2016 , 50, 1684-1690	0.7	6
40	Stimulated emission in heterostructures with double InGaAs/GaAsSb/GaAs quantum wells, grown on GaAs and Ge/Si(001) substrates. <i>Semiconductors</i> , 2016 , 50, 1435-1438	0.7	3
39	Long-wavelength stimulated emission and carrier lifetimes in HgCdTe-based waveguide structures with quantum wells. <i>Semiconductors</i> , 2016 , 50, 1651-1656	0.7	7
38	Mercury vacancies as divalent acceptors in Hg _y Te _{1-y} /Cd _x Hg _{1-x} Te structures with quantum wells. <i>Semiconductors</i> , 2016 , 50, 1662-1668	0.7	5

37	Terahertz imaging of Landau levels in HgTe-based topological insulators. <i>Applied Physics Letters</i> , 2016 , 108, 262102	3.4	8
36	Observation of dynamics of impurity photoconductivity in n-GaAs caused by electron cooling. <i>Semiconductors</i> , 2015 , 49, 113-117	0.7	3
35	Effect of the direct capture of holes with the emission of optical phonons on impurity-photoconductivity relaxation in p-Si:B. <i>Semiconductors</i> , 2015 , 49, 187-190	0.7	4
34	Anticrossing of Landau levels in HgTe/CdHgTe (013) quantum wells with an inverted band structure. <i>JETP Letters</i> , 2015 , 100, 790-794	1.2	23
33	Long-wavelength injection lasers based on Pb _{1-x} Sn _x Se alloys and their use in solid-state spectroscopy. <i>Semiconductors</i> , 2015 , 49, 1623-1626	0.7	13
32	Impurity-induced photoconductivity of narrow-gap CadmiumMercuryTelluride structures. <i>Semiconductors</i> , 2015 , 49, 1605-1610	0.7	6
31	Investigation of GaAs/AlGaAs quantum cascade structures by optical methods based on hot luminescence in the near-infrared range. <i>Semiconductors</i> , 2014 , 48, 1463-1466	0.7	
30	Specific features of the spectra and relaxation kinetics of long-wavelength photoconductivity in narrow-gap HgCdTe epitaxial films and heterostructures with quantum wells. <i>Semiconductors</i> , 2013 , 47, 1438-1441	0.7	15
29	Waveguide effect of GaAsSb quantum wells in a laser structure based on GaAs. <i>Semiconductors</i> , 2013 , 47, 1475-1477	0.7	6
28	Relaxation kinetics of impurity photoconductivity in p-Si:B with various levels of doping and degrees of compensation in high electric fields. <i>Semiconductors</i> , 2013 , 47, 1461-1464	0.7	3
27	Spectral-kinetic properties of heterostructures with GaAsSb/InGaAs/GaAs-based quantum wells emitting in the range of 1.0-2 μ m. <i>Semiconductors</i> , 2013 , 47, 1504-1507	0.7	
26	Spectra and kinetics of THz photoconductivity in narrow-gap Hg _{1-x} CdxTe (xSemiconductor Science and Technology, 2013 , 28, 125007	1.8	21
25	Picosecond photoluminescence dynamics in an InGaAs/GaAs quantum-well heterostructure. <i>Semiconductors</i> , 2012 , 46, 917-920	0.7	4
24	Study of lifetimes and photoconductivity relaxation in heterostructures with Hg _x Cd _{1-x} Te/Cd _y Hg _{1-y} Te quantum wells. <i>Semiconductors</i> , 2012 , 46, 1362-1366	0.7	27
23	Determination of the heterojunction type in structures with GaAsSb/GaAs quantum wells with various antimony fractions by optical methods. <i>Semiconductors</i> , 2012 , 46, 1376-1380	0.7	3
22	Features of impurity-photoconductivity relaxation in boron-doped silicon. <i>Semiconductors</i> , 2012 , 46, 1387-1391	0.7	12
21	Diagnostics of quantum cascade structures by optical methods in the near infrared region. <i>Semiconductors</i> , 2012 , 46, 1411-1414	0.7	2
20	GaAsSb/GaAs strained structures with quantum wells for lasers with emission wavelength near 1.3 μ m. <i>Semiconductors</i> , 2010 , 44, 405-412	0.7	19

19	Kinetics of terahertz photoconductivity in p-Ge under impurity breakdown conditions. <i>Semiconductors</i> , 2010 , 44, 1476-1479	0.7	9
18	Wide-aperture detector of terahertz radiation based on GaAs/InGaAs transistor structure with large-area slit grating gate. <i>Technical Physics Letters</i> , 2010 , 36, 365-368	0.7	8
17	Difference-frequency generation in a butt-join diode laser. <i>Semiconductors</i> , 2009 , 43, 208-211	0.7	4
16	Evolution of the photoresponse time of the GaAs/AlGaAs cyclotron resonance quantum Hall effect detector. <i>Semiconductors</i> , 2009 , 43, 223-227	0.7	
15	Resonance detection of terahertz radiation in submicrometer field-effect GaAs/AlGaAs transistors with two-dimensional electron gas. <i>Semiconductors</i> , 2009 , 43, 528-531	0.7	2
14	Experimental study of nonlinear mode mixing in dual-wavelength semiconductor lasers. <i>Laser Physics</i> , 2007 , 17, 684-687	1.2	1
13	Electron transport and detection of terahertz radiation in a GaN/AlGaIn submicrometer field-effect transistor. <i>Semiconductors</i> , 2007 , 41, 232-234	0.7	21
12	A multifrequency interband two-cascade laser. <i>Semiconductors</i> , 2007 , 41, 1209-1213	0.7	4
11	Frequency shift in a system of two laser diodes. <i>Semiconductors</i> , 2007 , 41, 1364-1368	0.7	1
10	Study of interband cascade lasers with tunneling transition. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2007 , 71, 96-99	0.4	
9	Generation of self-sustained pulsations of radiation in InGaAs/GaAs/InGaP quantum-well lasers. <i>Journal of Applied Spectroscopy</i> , 2007 , 74, 589-593	0.7	
8	Spectra of persistent photoconductivity in InAs/AlSb quantum-well heterostructures. <i>Semiconductors</i> , 2005 , 39, 22	0.7	15
7	Observation of the middle-infrared emission from semiconductor lasers generating two frequency lines in the near-infrared region of the spectrum. <i>Semiconductors</i> , 2005 , 39, 139	0.7	
6	Effect of coalescence and of the character of the initial oxide on the photoluminescence of ion-synthesized Si nanocrystals in SiO ₂ . <i>Physics of the Solid State</i> , 2005 , 47, 13	0.8	7
5	Photoelectric properties and electroluminescence of p-i-n diodes based on GeSi/Si heterostructures with self-assembled nanoclusters. <i>Physics of the Solid State</i> , 2005 , 47, 22	0.8	2
4	Two-dimensional gas of massless Dirac fermions in graphene. <i>Nature</i> , 2005 , 438, 197-200	50.4	16518
3	The influence of P ⁺ , B ⁺ , and N ⁺ ion implantation on the luminescence properties of the SiO ₂ : nc-Si system. <i>Physics of the Solid State</i> , 2004 , 46, 17-21	0.8	9
2	Electron transport and terahertz radiation detection in submicrometer-sized GaAs/AlGaAs field-effect transistors with two-dimensional electron gas. <i>Physics of the Solid State</i> , 2004 , 46, 146-149	0.8	19

1	3.3 THz Quantum Cascade Laser Based on a Three GaAs/AlGaAs Quantum-Well Active Module with an Operating Temperature above 120 K. <i>Semiconductors</i> ,1	0.7	o
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