

Alexander Dubinov

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.

110
papers

925
citations

15
h-index

27
g-index

117
ext. papers

1,161
ext. citations

1.3
avg, IF

3.81
L-index

#	Paper	IF	Citations
110	Graphene-based plasmonic metamaterial for terahertz laser transistors. <i>Nanophotonics</i> , 2022 ,	6.3	3
109	Calculation of the Resonance States of Coulomb Acceptors in Zero-Gap Semiconductors. <i>Semiconductors</i> , 2021 , 55, 537	0.7	1
108	Generation of Terahertz Radiation in InP:Fe Crystals Due to Second-Order Lattice Nonlinearity. <i>Semiconductors</i> , 2021 , 55, 785	0.7	
107	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
106	Photothermal Ionization Spectroscopy of Mercury Vacancies in HgCdTe Epitaxial Films. <i>JETP Letters</i> , 2021 , 113, 402-408	1.2	0
105	Auger recombination in narrow gap HgCdTe/CdHgTe quantum well heterostructures. <i>Journal of Applied Physics</i> , 2021 , 129, 133106	2.5	4
104	Possibility of intracavity terahertz difference frequency generation in a two-frequency GaAsP/AlGaAs/GaAs quantum well laser. <i>Applied Optics</i> , 2021 , 60, 4404-4409	1.7	
103	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
102	Terahertz plasmons in doped HgTe quantum well heterostructures: dispersion, losses, and amplification. <i>Applied Optics</i> , 2021 , 60, 8991-8998	1.7	0
101	Model of a Terahertz Quantum-Cascade Laser Based on Two-Dimensional Plasmons. <i>Semiconductors</i> , 2021 , 55, 828-830	0.7	
100	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	
99	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	
98	Effect of antimony doping on the energy of optical transitions in n-Ge layers grown on Si (001) and Ge (001) substrates. <i>Journal of Applied Physics</i> , 2020 , 127, 165701	2.5	0
97	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	
96	Mid-infrared stimulated emission in HgCdTe/CdHgTe quantum well heterostructures at room temperature. <i>Optical Engineering</i> , 2020 , 60,	1.1	2
95	Plasmon recombination in narrowgap HgTe quantum wells. <i>Journal of Physics Communications</i> , 2020 , 4, 115012	1.2	3
94	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

93	Analysis of Phonon Modes and Electron-Phonon Interaction in Quantum-Cascade Laser Heterostructures. <i>Semiconductors</i> , 2020 , 54, 936-940	0.7	
92	Probing States of a Double Acceptor in CdHgTe Heterostructures via Optical Gating. <i>JETP Letters</i> , 2020 , 111, 575-581	1.2	2
91	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
90	Continuous-Wave Stimulated Emission in the 10 μ m-14 μ m Range under Optical Excitation in HgCdTe/CdHgTe-QW Structures with Quasirelativistic Dispersion. <i>Semiconductors</i> , 2020 , 54, 1371-1375	0.7	1
89	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
88	Photoluminescence Spectra of InAs/GaInSb/InAs Quantum Wells in the Mid-Infrared Region. <i>Semiconductors</i> , 2020 , 54, 1119-1122	0.7	
87	The possibility of difference frequency generation in the GaAs phonon reststrahlen band within dual-chip GaAs-based lasers. <i>Journal of Applied Physics</i> , 2020 , 128, 053104	2.5	1
86	Submonolayer InGaAs/GaAs Quantum Dots Grown by MOCVD. <i>Semiconductors</i> , 2019 , 53, 1138-1142	0.7	3
85	Second-Harmonic Generation of Subterahertz Gyrotron Radiation by Frequency Doubling in InP:Fe and Its Application for Magneto spectroscopy of Semiconductor Structures. <i>Semiconductors</i> , 2019 , 53, 1217-1221	0.7	4
84	Chemical Shift and Exchange Interaction Energy of the 1s States of Magnesium Donors in Silicon. The Possibility of Stimulated Emission. <i>Semiconductors</i> , 2019 , 53, 1234-1237	0.7	3
83	Evolution of the Impurity Photoconductivity in CdHgTe Epitaxial Films with Temperature. <i>Semiconductors</i> , 2019 , 53, 1266-1271	0.7	1
82	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
81	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
80	Negative terahertz conductivity and amplification of surface plasmons in graphene/black phosphorus injection laser heterostructures. <i>Physical Review B</i> , 2019 , 100,	3.3	12
79	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
78	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
77	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
76	Terahertz light-emitting graphene-channel transistor toward single-mode lasing. <i>Nanophotonics</i> , 2018 , 7, 741-752	6.3	38

75	Stimulated emission in the 2.8-3.5 μm wavelength range from Peltier cooled HgTe/CdHgTe quantum well heterostructures. <i>Optics Express</i> , 2018 , 26, 12755-12760	3.3	18
74	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
73	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
72	On the Application of Strain-Compensating GaAsP Layers for the Growth of InGaAs/GaAs Quantum-Well Laser Heterostructures Emitting at Wavelengths above 1100 nm on Artificial Ge/Si Substrates. <i>Semiconductors</i> , 2018 , 52, 1547-1550	0.7	3
71	Terahertz Injection Lasers Based on a PbSnSe Solid Solution with an Emission Wavelength up to 50 μm and Their Application in the Magneto Spectroscopy of Semiconductors. <i>Semiconductors</i> , 2018 , 52, 1590-1594	0.7	7
70	Bipolar Persistent Photoconductivity in HgTe/CdHgTe (013) Double Quantum-Well Heterostructures. <i>Semiconductors</i> , 2018 , 52, 1586-1589	0.7	5
69	Photodetectors with an InGaAs Active Region and InGaP Metamorphic Buffer Layer Grown on GaAs Substrates. <i>Semiconductors</i> , 2018 , 52, 1564-1567	0.7	
68	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
67	Stimulated Emission in the 1.3-1.5 μm Spectral Range from AlGaInAs Quantum Wells in Hybrid Light-Emitting III-V Heterostructures on Silicon Substrates. <i>Semiconductors</i> , 2018 , 52, 1495-1499	0.7	
66	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
65	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
64	Stimulated Emission at 1.3- μm Wavelength in Metamorphic InGaAs/InGaAsP Structure with Quantum Wells Grown on Ge/Si(001) Substrate. <i>Technical Physics Letters</i> , 2018 , 44, 735-738	0.7	
63	Temperature-dependent terahertz spectroscopy of inverted-band three-layer InAs/GaSb/InAs quantum well. <i>Physical Review B</i> , 2018 , 97,	3.3	13
62	On the stimulated emission of InGaAs/GaAs/AlGaAs laser structures grown by MOCVD on exact and inclined Ge/Si(001) substrates. <i>Semiconductors</i> , 2017 , 51, 663-666	0.7	5
61	HgCdTe-based heterostructures for terahertz photonics. <i>APL Materials</i> , 2017 , 5, 035503	5.7	33
60	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
59	Technology of the production of laser diodes based on GaAs/InGaAs/AlGaAs structures grown on a Ge/Si substrate. <i>Semiconductors</i> , 2017 , 51, 1477-1480	0.7	4
58	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

57	Investigation of HgCdTe waveguide structures with quantum wells for long-wavelength stimulated emission. <i>Semiconductors</i> , 2017 , 51, 1557-1561	0.7	6
56	Terahertz injection lasers based on PbSnSe alloy with an emission wavelength up to 46.5 μm . <i>Semiconductors</i> , 2016 , 50, 1669-1672	0.7	6
55	Method for narrowing the directional pattern of an InGaAs/GaAs/AlGaAs multiwell heterolaser. <i>Semiconductors</i> , 2016 , 50, 1488-1492	0.7	
54	Stimulated emission from a metamorphic GaAsSb bulk layer on a GaAs substrate. <i>Semiconductors</i> , 2016 , 50, 586-589	0.7	
53	Giant negative photoconductivity of PbSnTe:In films with wavelength cutoff near 30 μm . <i>Semiconductors</i> , 2016 , 50, 1684-1690	0.7	6
52	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
51	Long wavelength stimulated emission up to 9.5 μm from HgCdTe quantum well heterostructures. <i>Applied Physics Letters</i> , 2016 , 108, 092104	3.4	25
50	Germanium laser with a hybrid surface plasmon mode. <i>Semiconductors</i> , 2016 , 50, 1449-1452	0.7	1
49	Resonant features of the terahertz generation in semiconductor nanowires. <i>Semiconductors</i> , 2016 , 50, 1561-1565	0.7	2
48	Mercury vacancies as divalent acceptors in $\text{Hg}_{1-y}\text{Te}_{1-y}/\text{Cd}_x\text{Hg}_{1-x}\text{Te}$ structures with quantum wells. <i>Semiconductors</i> , 2016 , 50, 1662-1668	0.7	5
47	Observation of dynamics of impurity photoconductivity in n-GaAs caused by electron cooling. <i>Semiconductors</i> , 2015 , 49, 113-117	0.7	3
46	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
45	An observation of direct-gap electroluminescence in GaAs structures with Ge quantum wells. <i>Semiconductors</i> , 2015 , 49, 170-173	0.7	
44	Optical characteristics of laser diodes based on A3B5 compounds grown on germanium substrates. <i>Technical Physics Letters</i> , 2015 , 41, 304-306	0.7	
43	The waveguide effect of InGaAs quantum wells in a GaAs structure on Si substrate with Ge buffer layer. <i>Technical Physics Letters</i> , 2015 , 41, 648-650	0.7	2
42	Long-wavelength injection lasers based on $\text{Pb}_{1-x}\text{Sn}_x\text{Se}$ alloys and their use in solid-state spectroscopy. <i>Semiconductors</i> , 2015 , 49, 1623-1626	0.7	13
41	On a semiconductor laser with a p-n tunnel junction with radiation emission through the substrate. <i>Semiconductors</i> , 2015 , 49, 1440-1442	0.7	1
40	Optimization of InGaP/GaAs/InGaAs heterolasers with tunnel-coupled waveguides. <i>Semiconductors</i> , 2015 , 49, 1571-1574	0.7	1

39	Stimulated emission from an InGaAs/GaAs/AlGaAs heterostructure grown on a Si substrate. <i>JETP Letters</i> , 2015 , 100, 795-797	1.2	4
38	Impurity-induced photoconductivity of narrow-gap CadmiumMercuryTelluride structures. <i>Semiconductors</i> , 2015 , 49, 1605-1610	0.7	6
37	Efficiency of vertical emission from a semiconductor laser waveguide with a diffraction grating. <i>Semiconductors</i> , 2014 , 48, 89-94	0.7	3
36	Voltage-tunable terahertz and infrared photodetectors based on double-graphene-layer structures. <i>Applied Physics Letters</i> , 2014 , 104, 163505	3.4	25
35	Surface-plasmons lasing in double-graphene-layer structures. <i>Journal of Applied Physics</i> , 2014 , 115, 044515	1.5	14
34	Role of auger recombination in the determination of the threshold current density of a green-wavelength laser. <i>JETP Letters</i> , 2013 , 97, 245-248	1.2	1
33	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
32	Waveguide effect of GaAsSb quantum wells in a laser structure based on GaAs. <i>Semiconductors</i> , 2013 , 47, 1475-1477	0.7	6
31	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
30	The gain enhancement effect of surface plasmon polaritons on terahertz stimulated emission in optically pumped monolayer graphene. <i>New Journal of Physics</i> , 2013 , 15, 075003	2.9	76
29	Structural and optical properties of GaAs-based heterostructures with Ge and Ge/InGaAs quantum wells. <i>Semiconductors</i> , 2013 , 47, 636-640	0.7	3
28	Spectra and kinetics of THz photoconductivity in narrow-gap Hg _{1-x} Cd _x Te (x). <i>Semiconductor Science and Technology</i> , 2013 , 28, 125007	1.8	21
27	Picosecond photoluminescence dynamics in an InGaAs/GaAs quantum-well heterostructure. <i>Semiconductors</i> , 2012 , 46, 917-920	0.7	4
26	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
25	Features of impurity-photoconductivity relaxation in boron-doped silicon. <i>Semiconductors</i> , 2012 , 46, 1387-1391	0.7	12
24	Terahertz surface plasmons in optically pumped graphene structures. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 145302	1.8	127
23	Simultaneous TE ₁ and TE ₂ mode lasing yielding dual-wavelength oscillation in a semiconductor laser with a tunnel junction. <i>Semiconductors</i> , 2011 , 45, 641-645	0.7	3
22	Anomalous characteristics of lasers with a large number of quantum wells. <i>Technical Physics</i> , 2011 , 56, 1049-1052	0.5	3

21	Terahertz spectroscopy of quantum-well narrow-bandgap HgTe/CdTe-based heterostructures. <i>JETP Letters</i> , 2010 , 92, 756-761	1.2	24
20	Kinetics of terahertz photoconductivity in p-Ge under impurity breakdown conditions. <i>Semiconductors</i> , 2010 , 44, 1476-1479	0.7	9
19	Efficient generation of the first waveguide mode in the InGaAs/GaAs/InGaP heterolaser 2010 , 42, 354		
18	Difference-frequency generation in a butt-joint diode laser. <i>Semiconductors</i> , 2009 , 43, 208-211	0.7	4
17	Simultaneous generation of TE 0 and TE 1 modes with different wavelengths in a semiconducting laser diode. <i>Technical Physics</i> , 2009 , 54, 1711-1713	0.5	
16	Feasibility of terahertz lasing in optically pumped epitaxial multiple graphene layer structures. <i>Journal of Applied Physics</i> , 2009 , 106, 084507	2.5	109
15	Tunable source of terahertz radiation based on the difference-frequency generation in a GaP crystal. <i>JETP Letters</i> , 2008 , 88, 787-789	1.2	8
14	Room-temperature intracavity difference-frequency generation in butt-joint diode lasers. <i>Applied Physics Letters</i> , 2008 , 92, 021122	3.4	17
13	Efficient generation of the first waveguide mode in the InGaAs/GaAs/InGaP heterolaser. <i>Semiconductors</i> , 2008 , 42, 354-357	0.7	0
12	Experimental study of nonlinear mode mixing in dual-wavelength semiconductor lasers. <i>Laser Physics</i> , 2007 , 17, 684-687	1.2	1
11	Difference-frequency pulse generation in quantum well heterolasers. <i>Laser Physics</i> , 2007 , 17, 688-694	1.2	1
10	Picosecond kinetics of photoexcited carriers in gallium arsenide containing aluminum nanoclusters. <i>Semiconductors</i> , 2007 , 41, 909-913	0.7	2
9	A multifrequency interband two-cascade laser. <i>Semiconductors</i> , 2007 , 41, 1209-1213	0.7	4
8	Study of interband cascade lasers with tunneling transition. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2007 , 71, 96-99	0.4	
7	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	
6	Nonlinear mode mixing in dual-wavelength semiconductor lasers with tunnel junctions. <i>Applied Physics Letters</i> , 2007 , 90, 171106	3.4	13
5	Oscillations at a difference frequency in the middle and far infrareds in GaP semiconductor waveguides. <i>Technical Physics</i> , 2006 , 51, 1207-1209	0.5	2
4	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

3	Nonlinear mid-IR radiation in two-frequency semiconductor lasers with a corrugated waveguide. <i>Technical Physics</i> , 2004 , 49, 1486-1490	0.5	1
2	Population inversion between Γ subbands in quantum wells under the conditions of Γ -L intervalley transfer. <i>Semiconductors</i> , 2003 , 37, 215-219	0.7	1
1	Inversion of the electron population in subbands of dimensional quantization with longitudinal transport in tunnel-coupled quantum wells. <i>Semiconductors</i> , 2002 , 36, 685-690	0.7	4