Alexander Dubinov

List of Publications by Year
in descending order

117	1,286	430442	395343
papers	citations	18 h-index	33 g-index

117	117	117	742
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Terahertz surface plasmons in optically pumped graphene structures. Journal of Physics Condensed Matter, 2011, 23, 145302.	0.7	168
2	Feasibility of terahertz lasing in optically pumped epitaxial multiple graphene layer structures. Journal of Applied Physics, 2009, 106, .	1.1	125
3	The gain enhancement effect of surface plasmon polaritons on terahertz stimulated emission in optically pumped monolayer graphene. New Journal of Physics, 2013, 15, 075003.	1.2	94
4	Stimulated emission from HgCdTe quantum well heterostructures at wavelengths up to 19.5â€‰Î¼m. Applied Physics Letters, 2017, 111, .	1.5	58
5	Terahertz light-emitting graphene-channel transistor toward single-mode lasing. Nanophotonics, 2018, 7, 741-752.	2.9	57
6	HgCdTe-based heterostructures for terahertz photonics. APL Materials, 2017, 5, .	2.2	49
7	Study of lifetimes and photoconductivity relaxation in heterostructures with Hg x Cd1 â^' x Te/Cd y Hg1 â^' y Te quantum wells. Semiconductors, 2012, 46, 1362-1366.	0.2	34
8	Long wavelength stimulated emission up to 9.5â€‰Î¼m from HgCdTe quantum well heterostructures. Applied Physics Letters, 2016, 108, .	1.5	34
9	Voltage-tunable terahertz and infrared photodetectors based on double-graphene-layer structures. Applied Physics Letters, 2014, 104, .	1.5	32
10	Spectra and kinetics of THz photoconductivity in narrow-gap Hg_{1â€“x}Cd_xTe (x< 0.2) epitaxial films. Semiconductor Science and Technology, 2013, 28, 125007.	1.0	29
11	Terahertz spectroscopy of quantum-well narrow-bandgap HgTe/CdTe-based heterostructures. JETP Letters, 2010, 92, 756-761.	0.4	27
12	Stimulated emission in the 28â€“35 Î¼m wavelength range from Peltier cooled HgTe/CdHgTe quantum well heterostructures. Optics Express, 2018, 26, 12755.	1.7	26
13	Temperature-dependent terahertz spectroscopy of inverted-band three-layer InAs/GaSb/InAs quantum well. Physical Review B, 2018, 97, .	1.1	24
14	Electron transport and terahertz radiation detection in submicrometer-sized GaAs/AlGaAs field-effect transistors with two-dimensional electron gas. Physics of the Solid State, 2004, 46, 146-149.	0.2	23
15	Radiative recombination in narrow gap HgTe/CdHgTe quantum well heterostructures for laser applications. Journal of Physics Condensed Matter, 2018, 30, 495301.	0.7	22
16	Surface-plasmons lasing in double-graphene-layer structures. Journal of Applied Physics, 2014, 115, 044511.	1.1	21
17	Negative terahertz conductivity and amplification of surface plasmons in grapheneâ€“black phosphorus injection laser heterostructures. Physical Review B, 2019, 100, .	1.1	21
18	Temperature limitations for stimulated emission in 3â€“4 Î¼m range due to threshold and non-threshold Auger recombination in HgTe/CdHgTe quantum wells. Applied Physics Letters, 2020, 117, 083103.	1.5	20

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19	Room-temperature intracavity difference-frequency generation in butt-joint diode lasers. Applied Physics Letters, 2008, 92, 021122.	1.5	18
20	Specific features of the spectra and relaxation kinetics of long-wavelength photoconductivity in narrow-gap HgCdTe epitaxial films and heterostructures with quantum wells. Semiconductors, 2013, 47, 1438-1441.	0.2	18
21	Coherent Emission in the Vicinity of 10 THz due to Auger-Suppressed Recombination of Dirac Fermions in HgCdTe Quantum Wells. ACS Photonics, 2021, 8, 3526-3535.	3.2	17
22	Nonlinear mode mixing in dual-wavelength semiconductor lasers with tunnel junctions. Applied Physics Letters, 2007, 90, 171106.	1.5	16
23	Long-wavelength injection lasers based on Pb1â€“x Sn x Se alloys and their use in solid-state spectroscopy. Semiconductors, 2015, 49, 1623-1626.	0.2	16
24	Graphene-based plasmonic metamaterial for terahertz laser transistors. Nanophotonics, 2022, 11, 1677-1696.	2.9	15
25	Features of impurity-photoconductivity relaxation in boron-doped silicon. Semiconductors, 2012, 46, 1387-1391.	0.2	14
26	Terahertz Injection Lasers Based on a PbSnSe Solid Solution with an Emission Wavelength up to 50 Î¼m and Their Application in the Magnetospectroscopy of Semiconductors. Semiconductors, 2018, 52, 1590-1594.	0.2	14
27	Auger recombination in narrow gap HgCdTe/CdHgTe quantum well heterostructures. Journal of Applied Physics, 2021, 129, .	1.1	11
28	Kinetics of terahertz photoconductivity in p-Ge under impurity breakdown conditions. Semiconductors, 2010, 44, 1476-1479.	0.2	10
29	Features of Photoluminescence of Double Acceptors in HgTe/CdHgTe Heterostructures with Quantum Wells in a Terahertz Range. JETP Letters, 2019, 109, 657-662.	0.4	10
30	Tunable source of terahertz radiation based on the difference-frequency generation in a GaP crystal. JETP Letters, 2008, 88, 787-789.	0.4	9
31	Bipolar Persistent Photoconductivity in HgTe/CdHgTe (013) Double Quantum-Well Heterostructures. Semiconductors, 2018, 52, 1586-1589.	0.2	9
32	Plasmon recombination in narrowgap HgTe quantum wells. Journal of Physics Communications, 2020, 4, 115012.	0.5	9
33	Giant negative photoconductivity of PbSnTe:In films with wavelength cutoff near 30 Î¼m. Semiconductors, 2016, 50, 1684-1690.	0.2	8
34	On the band spectrum in p-type HgTe/CdHgTe heterostructures and its transformation under temperature variation. Semiconductors, 2017, 51, 1531-1536.	0.2	8
35	Threshold energies of Auger recombination in HgTe/CdHgTe quantum well heterostructures with 30â€“70 meV bandgap. Journal of Physics Condensed Matter, 2019, 31, 425301.	0.7	8
36	Waveguide effect of GaAsSb quantum wells in a laser structure based on GaAs. Semiconductors, 2013, 47, 1475-1477.	0.2	7

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37	Long-wavelength stimulated emission and carrier lifetimes in HgCdTe-based waveguide structures with quantum wells. Semiconductors, 2016, 50, 1651-1656.	0.2	7
38	Terahertz injection lasers based on PbSnSe alloy with an emission wavelength up to 46.5 Î¼m. Semiconductors, 2016, 50, 1669-1672.	0.2	7
39	Chemical Shift and Exchange Interaction Energy of the 1s States of Magnesium Donors in Silicon. The Possibility of Stimulated Emission. Semiconductors, 2019, 53, 1234-1237.	0.2	7
40	Toward Peltier-cooled mid-infrared HgCdTe lasers: Analyzing the temperature quenching of stimulated emission at âˆ¼6â€‰Î¼m wavelength from HgCdTe quantum wells. Journal of Applied Physics, 2021, 130, .	1.1	7
41	Impurity-induced photoconductivity of narrow-gap Cadmiumâ€“Mercuryâ€“Telluride structures. Semiconductors, 2015, 49, 1605-1610.	0.2	6
42	Mercury vacancies as divalent acceptors in Hg y Te1 â€“ y /Cd x Hg1 â€“ x Te structures with quantum wells. Semiconductors, 2016, 50, 1662-1668.	0.2	6
43	Investigation of HgCdTe waveguide structures with quantum wells for long-wavelength stimulated emission. Semiconductors, 2017, 51, 1557-1561.	0.2	6
44	Terahertz Photoluminescence of Double Acceptors in Bulky Epitaxial HgCdTe Layers and HgTe/CdHgTe Structures with Quantum Wells. Journal of Experimental and Theoretical Physics, 2018, 127, 1125-1129.	0.2	6
45	Effect of Features of the Band Spectrum on the Characteristics of Stimulated Emission in Narrow-Gap Heterostructures with HgCdTe Quantum Wells. Semiconductors, 2018, 52, 1375-1379.	0.2	6
46	Second-Harmonic Generation of Subterahertz Gyrotron Radiation by Frequency Doubling in InP:Fe and Its Application for Magnetospectroscopy of Semiconductor Structures. Semiconductors, 2019, 53, 1217-1221.	0.2	6
47	Inversion of the electron population in subbands of dimensional quantization with longitudinal transport in tunnel-coupled quantum wells. Semiconductors, 2002, 36, 685-690.	0.2	5
48	Experimental study of nonlinear mode mixing in dual-wavelength semiconductor lasers. Laser Physics, 2007, 17, 684-687.	0.6	5
49	Resonant features of the terahertz generation in semiconductor nanowires. Semiconductors, 2016, 50, 1561-1565.	0.2	5
50	On the stimulated emission of InGaAs/GaAs/AlGaAs laser structures grown by MOCVD on exact and inclined Ge/Si(001) substrates. Semiconductors, 2017, 51, 663-666.	0.2	5
51	Submonolayer InGaAs/GaAs Quantum Dots Grown by MOCVD. Semiconductors, 2019, 53, 1138-1142.	0.2	5
52	Probing States of a Double Acceptor in CdHgTe Heterostructures via Optical Gating. JETP Letters, 2020, 111, 575-581.	0.4	5
53	Mid-infrared stimulated emission in HgCdTe/CdHgTe quantum well heterostructures at room temperature. Optical Engineering, 2020, 60, .	0.5	5
54	A multifrequency interband two-cascade laser. Semiconductors, 2007, 41, 1209-1213.	0.2	4

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55	Difference-frequency generation in a butt-join diode laser. Semiconductors, 2009, 43, 208-211.	0.2	4
56	Picosecond photoluminescence dynamics in an InGaAs/GaAs quantum-well heterostructure. Semiconductors, 2012, 46, 917-920.	0.2	4
57	Stimulated emission from an InGaAs/GaAs/AlGaAs heterostructure grown on a Si substrate. JETP Letters, 2015, 100, 795-797.	0.4	4
58	Effect of the direct capture of holes with the emission of optical phonons on impurity-photoconductivity relaxation in p-Si:B. Semiconductors, 2015, 49, 187-190.	0.2	4
59	Technology of the production of laser diodes based on GaAs/InGaAs/AlGaAs structures grown on a Ge/Si substrate. Semiconductors, 2017, 51, 1477-1480.	0.2	4
60	Calculation of Multiply Charged States of Impurity-Defect Centers in Epitaxial Hg1 â€“xCdxTe Layers. Semiconductors, 2018, 52, 1369-1374.	0.2	4
61	Study of the Auger Recombination Energy Threshold in a Series of Waveguide Heterostructures with HgTe/Cd0.7Hg0.3Te QWs Near 14 Î¼m. Semiconductors, 2019, 53, 1154-1157.	0.2	4
62	Terahertz Spectroscopy of Two-Dimensional Semimetal in Three-Layer InAs/GaSb/InAs Quantum Well. JETP Letters, 2019, 109, 96-101.	0.4	4
63	Investigation into Microwave Absorption in Semiconductors for Frequency-Multiplication Devices and Radiation-Output Control of Continuous and Pulsed Gyrotrons. Semiconductors, 2020, 54, 1069-1074.	0.2	4
64	Nonlinear mid-IR radiation in two-frequency semiconductor lasers with a corrugated waveguide. Technical Physics, 2004, 49, 1486-1490.	0.2	3
65	Oscillations at a difference frequency in the middle and far infrareds in GaP semiconductor waveguides. Technical Physics, 2006, 51, 1207-1209.	0.2	3
66	Picosecond kinetics of photoexcited carriers in gallium arsenide containing aluminum nanoclusters. Semiconductors, 2007, 41, 909-913.	0.2	3
67	Simultaneous TE1 and TE2 mode lasing yielding dual-wavelength oscillation in a semiconductor laser with a tunnel junction. Semiconductors, 2011, 45, 641-645.	0.2	3
68	Anomalous characteristics of lasers with a large number of quantum wells. Technical Physics, 2011, 56, 1049-1052.	0.2	3
69	Relaxation kinetics of impurity photoconductivity in p-Si:B with various levels of doping and degrees of compensation in high electric fields. Semiconductors, 2013, 47, 1461-1464.	0.2	3
70	Structural and optical properties of GaAs-based heterostructures with Ge and Ge/InGaAs quantum wells. Semiconductors, 2013, 47, 636-640.	0.2	3
71	Efficiency of vertical emission from a semiconductor laser waveguide with a diffraction grating. Semiconductors, 2014, 48, 89-94.	0.2	3
72	Observation of dynamics of impurity photoconductivity in n-GaAs caused by electron cooling. Semiconductors, 2015, 49, 113-117.	0.2	3

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73	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. Semiconductors, 2018, 52, 1547-1550.	0.2	3
74	Lowering the Lasing Threshold by Doping in Mid-Infrared Lasers Based on HgCdTe with HgTe Quantum Wells. Semiconductors, 2018, 52, 1221-1224.	0.2	3
75	Photothermal Ionization Spectroscopy of Mercury Vacancies in HgCdTe Epitaxial Films. JETP Letters, 2021, 113, 402-408.	0.4	3
76	Terahertz plasmons in doped HgTe quantum well heterostructures: dispersion, losses, and amplification. Applied Optics, 2021, 60, 8991.	0.9	3
77	Population inversion between Î“ subbands in quantum wells under the conditions of Î“-L intervalley transfer. Semiconductors, 2003, 37, 215-219.	0.2	2
78	Difference-frequency pulse generation in quantum well heterolasers. Laser Physics, 2007, 17, 688-694.	0.6	2
79	The waveguide effect of InGaAs quantum wells in a GaAs structure on Si substrate with Ge buffer layer. Technical Physics Letters, 2015, 41, 648-650.	0.2	2
80	Evolution of the Impurity Photoconductivity in CdHgTe Epitaxial Films with Temperature. Semiconductors, 2019, 53, 1266-1271.	0.2	2
81	Continuous-Wave Stimulated Emission in the 10â€“14-Î¼m Range under Optical Excitation in HgCdTe/CdHgTe-QW Structures with Quasirelativistic Dispersion. Semiconductors, 2020, 54, 1371-1375.	0.2	2
82	Effect of antimony doping on the energy of optical transitions in n-Ge layers grown on Si (001) and Ge (001) substrates. Journal of Applied Physics, 2020, 127, 165701.	1.1	2
83	Calculation of the Resonance States of Coulomb Acceptors in Zero-Gap Semiconductors. Semiconductors, 2021, 55, 537.	0.2	2
84	Efficient generation of the first waveguide mode in the InGaAs/GaAs/InGaP heterolaser. Semiconductors, 2008, 42, 354-357.	0.2	1
85	Simultaneous generation of TE 0 and TE 1 modes with different wavelengths in a semiconducting laser diode. Technical Physics, 2009, 54, 1711-1713.	0.2	1
86	Role of auger recombination in the determination of the threshold current density of a green-wavelength laser. JETP Letters, 2013, 97, 245-248.	0.4	1
87	On a semiconductor laser with a pâ€“n tunnel junction with radiation emission through the substrate. Semiconductors, 2015, 49, 1440-1442.	0.2	1
88	Optimization of InGaP/GaAs/InGaAs heterolasers with tunnel-coupled waveguides. Semiconductors, 2015, 49, 1571-1574.	0.2	1
89	Germanium laser with a hybrid surface plasmon mode. Semiconductors, 2016, 50, 1449-1452.	0.2	1
90	Spectra of Double Acceptors in Layers of Barriers and Quantum Wells of HgTe/CdHgTe Heterostructures. Semiconductors, 2019, 53, 1198-1202.	0.2	1

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91	Investigation of the Photosensitivity of Narrow-Gap and Gapless HgCdTe Solid Solutions in the Terahertz and Sub-Terahertz Range. Semiconductors, 2020, 54, 1096-1102.	0.2	1
92	Photoluminescence Spectra of InAs/GaInSb/InAs Quantum Wells in the Mid-Infrared Region. Semiconductors, 2020, 54, 1119-1122.	0.2	1
93	The possibility of difference frequency generation in the GaAs phonon reststrahlen band within dual-chip GaAs-based lasers. Journal of Applied Physics, 2020, 128, 053104.	1.1	1
94	Express Characterization of the HgCdTe/CdHgTe Quantum Well Waveguide Heterostructures with the Quasi-Relativistic Carrier Dispersion Law by Room-Temperature Photoluminescence Spectroscopy. Technical Physics Letters, 2021, 47, 154-157.	0.2	1
95	Possibility of intracavity terahertz difference frequency generation in a two-frequency GaAsP/AlGaAs/GaAs quantum well laser. Applied Optics, 2021, 60, 4404.	0.9	1
96	Plasmon absorption reducing in multiple quantum well structures. Applied Optics, 0, , .	0.9	1
97	Study of interband cascade lasers with tunneling transition. Bulletin of the Russian Academy of Sciences: Physics, 2007, 71, 96-99.	0.1	0
98	Generation of self-sustained pulsations of radiation in InGaAs/GaAs/InGaP quantum-well lasers. Journal of Applied Spectroscopy, 2007, 74, 589-593.	0.3	0
99	Terahertz difference frequency generation in GaAs-based butt-joint diode laser with germanium substrate. , 2008, , .		0
100	Intracavity difference-frequency generation in GaAS/InGaAs/InGaP butt-joint diode lasers. , 2008, , .		0
101	Graphene active plasmons toward the new types of terahertz lasers. , 2013, , .		0
102	An observation of direct-gap electroluminescence in GaAs structures with Ge quantum wells. Semiconductors, 2015, 49, 170-173.	0.2	0
103	Optical characteristics of laser diodes based on A3B5 compounds grown on germanium substrates. Technical Physics Letters, 2015, 41, 304-306.	0.2	0
104	Single-mode terahertz emission from current-injection graphene-channel transistor under population inversion. , 2016, , .		0
105	Method for narrowing the directional pattern of an InGaAs/GaAs/AlGaAs multiwell heterolaser. Semiconductors, 2016, 50, 1488-1492.	0.2	0
106	Stimulated emission from a metamorphic GaAsSb bulk layer on a GaAs substrate. Semiconductors, 2016, 50, 586-589.	0.2	0
107	Terahertz light emitting transistor based on current injection dualgate graphene-channel FET. , 2017, , .		0
108	Photodetectors with an InGaAs Active Region and InGaP Metamorphic Buffer Layer Grown on GaAs Substrates. Semiconductors, 2018, 52, 1564-1567.	0.2	0

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109	Stimulated Emission in the 1.3â€“1.5 Î¼m Spectral Range from AlGaInAs Quantum Wells in Hybrid Light-Emitting IIIâ€“V Heterostructures on Silicon Substrates. Semiconductors, 2018, 52, 1495-1499.	0.2	0
110	Stimulated Emission at 1.3-Î¼m Wavelength in Metamorphic InGaAs/InGaAsP Structure with Quantum Wells Grown on Ge/Si(001) Substrate. Technical Physics Letters, 2018, 44, 735-738.	0.2	0
111	Analysis of Phonon Modes and Electronâ€“Phonon Interaction in Quantum-Cascade Laser Heterostructures. Semiconductors, 2020, 54, 936-940.	0.2	0
112	10.1007/s11453-008-3021-6. , 2010, 42, 354.		0
113	Investigation of Stimulated Emission from HgTe/CdHgTe Quantum-Well Heterostructures in the 3â€“5 Î¼m Atmospheric Transparency Window. Semiconductors, 2020, 54, 1365-1370.	0.2	0
114	Generation of Terahertz Radiation in InP:Fe Crystals Due to Second-Order Lattice Nonlinearity. Semiconductors, 2021, 55, 785-789.	0.2	0
115	Model of a Terahertz Quantum-Cascade Laser Based on Two-Dimensional Plasmons. Semiconductors, 2021, 55, 828-830.	0.2	0
116	Calculation of the Temperature Dependence of the Coulomb-Acceptor State Energy in a Narrow-Gap HgCdTe Solid Solution. Semiconductors, 2021, 55, 907-913.	0.2	0
117	Effect of Internal Optical Losses on the Generation of Mid-IR Stimulated Emission in Waveguide Heterostructures with HgCdTe/CdHgTe Quantum Wells. Semiconductors, 2021, 55, 899-902.	0.2	0