Maxim Ryzhii

List of Publications by Year
in descending order

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216 papers	3,764 citations	136740 32 h-index	161609 54 g-index
221 all docs	221 docs citations	221 times ranked	2007 citing authors

#	Article	IF	Citations
1	Negative dynamic conductivity of graphene with optical pumping. Journal of Applied Physics, 2007, 101, 083114.	1.1	331
2	Graphene-based devices in terahertz science and technology. Journal Physics D: Applied Physics, 2012, 45, 303001.	1.3	234
3	Toward the creation of terahertz graphene injection laser. Journal of Applied Physics, 2011, 110, .	1.1	141
4	Feasibility of terahertz lasing in optically pumped epitaxial multiple graphene layer structures. Journal of Applied Physics, 2009, 106, .	1.1	125
5	Injection and Population Inversion in Electrically Induced pâ€“n Junction in Graphene with Split Gates. Japanese Journal of Applied Physics, 2007, 46, L151-L153.	0.8	104
6	Emission and Detection of Terahertz Radiation Using Two-Dimensional Electrons in IIIâ€“V Semiconductors and Graphene. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 63-71.	2.0	98
7	Graphene bilayer field-effect phototransistor for terahertz and infrared detection. Physical Review B, 2009, 79, .	1.1	86
8	Comparison of dark current, responsivity and detectivity in different intersubband infrared photodetectors. Semiconductor Science and Technology, 2004, 19, 8-16.	1.0	83
9	Terahertz Laser with Optically Pumped Graphene Layers and Fabriâ€“Perot Resonator. Applied Physics Express, 2009, 2, 092301.	1.1	77
10	Device Model for Graphene Nanoribbon Phototransistor. Applied Physics Express, 0, 1, 063002.	1.1	76
11	Double graphene-layer plasma resonances terahertz detector. Journal Physics D: Applied Physics, 2012, 45, 302001.	1.3	76
12	Terahertz and infrared photodetection using p-i-n multiple-graphene-layer structures. Journal of Applied Physics, 2010, 107, .	1.1	73
13	Terahertz-Wave Generation Using Graphene: Toward New Types of Terahertz Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 8400209-8400209.	1.9	68
14	Characteristics of a terahertz photomixer based on a high-electron mobility transistor structure with optical input through the ungated regions. Journal of Applied Physics, 2004, 95, 2084-2089.	1.1	65
15	Terahertz light-emitting graphene-channel transistor toward single-mode lasing. Nanophotonics, 2018, 7, 741-752.	2.9	57
16	Terahertz and infrared photodetectors based on multiple graphene layer and nanoribbon structures. Opto-electronics Review, 2012, 20, .	2.4	53
17	Effect of plasma resonances on dynamic characteristics of double graphene-layer optical modulator. Journal of Applied Physics, 2012, 112, .	1.1	50
18	Injection terahertz laser using the resonant inter-layer radiative transitions in double-graphene-layer structure. Applied Physics Letters, 2013, 103, .	1.5	47

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19	Terahertz photomixing using plasma resonances in double-graphene layer structures. Journal of Applied Physics, 2013, 113, .	1.1	47
20	Dynamic effects in double graphene-layer structures with inter-layer resonant-tunnelling negative conductivity. Journal Physics D: Applied Physics, 2013, 46, 315107.	1.3	46
21	Graphene Tunneling Transit-Time Terahertz Oscillator Based on Electrically Induced pâ€"iâ€"n Junction. Applied Physics Express, 0, 2, 034503.	1.1	45
22	Terahertz photoconductive emitter with dielectric-embedded high-aspect-ratio plasmonic grating for operation with low-power optical pumps. AIP Advances, 2019, 9, .	0.6	43
23	Current-voltage characteristics of a graphene-nanoribbon field-effect transistor. Journal of Applied Physics, 2008, 103, .	1.1	42
24	Analysis of integrated quantum-well infrared photodetector and light-emitting diode for implementing pixelless imaging devices. IEEE Journal of Quantum Electronics, 1997, 33, 1527-1531.	1.0	40
25	Device model for graphene bilayer field-effect transistor. Journal of Applied Physics, 2009, 105, 104510.	1.1	40
26	Cardiac Conduction Model for Generating 12 Lead ECG Signals With Realistic Heart Rate Dynamics. IEEE Transactions on Nanobioscience, 2018, 17, 525-532.	2.2	39
27	Graphene terahertz uncooled bolometers. Journal Physics D: Applied Physics, 2013, 46, 065102.	1.3	38
28	A heterogeneous coupled oscillator model for simulation of ECG signals. Computer Methods and Programs in Biomedicine, 2014, 117, 40-49.	2.6	38
29	Monte Carlo analysis of ultrafast electron transport in quantum well infrared photodetectors. Applied Physics Letters, 1998, 72, 842-844.	1.5	37
30	Effect of Heating and Cooling of Photogenerated Electronâ€"Hole Plasma in Optically Pumped Graphene on Population Inversion. Japanese Journal of Applied Physics, 2011, 50, 094001.	0.8	37
31	Effect of Heating and Cooling of Photogenerated Electronâ€"Hole Plasma in Optically Pumped Graphene on Population Inversion. Japanese Journal of Applied Physics, 2011, 50, 094001.	0.8	35
32	Graphene Nanoribbon Phototransistor: Proposal and Analysis. Japanese Journal of Applied Physics, 2009, 48, 04C144.	0.8	34
33	Double-graphene-layer terahertz laser: concept, characteristics, and comparison. Optics Express, 2013, 21, 31567.	1.7	34
34	Terahertz and infrared detectors based on graphene structures. Infrared Physics and Technology, 2011, 54, 302-305.	1.3	32
35	Double injection in graphene p-i-n structures. Journal of Applied Physics, 2013, 113, 244505.	1.1	32
36	Voltage-tunable terahertz and infrared photodetectors based on double-graphene-layer structures. Applied Physics Letters, 2014, 104, .	1.5	32

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37	Mechanism of self-excitation of terahertz plasma oscillations in periodically double-gated electron channels. Journal of Physics Condensed Matter, 2008, 20, 384207.	0.7	30
38	Graphene materials and devices in terahertz science and technology. MRS Bulletin, 2012, 37, 1235-1243.	1.7	30
39	Monte Carlo modeling of electron velocity overshoot effect in quantum well infrared photodetectors. Journal of Applied Physics, 1998, 84, 3403-3408.	1.1	29
40	Monte Carlo Modeling of Electron Transport and Capture Processes in AlGaAs/GaAs Multiple Quantum Well Infrared Photodetectors. Japanese Journal of Applied Physics, 1999, 38, 5922-5927.	0.8	29
41	Resonant plasmonic terahertz detection in graphene split-gate field-effect transistors with lateral pâ€"n junctions. Journal Physics D: Applied Physics, 2016, 49, 315103.	1.3	27
42	Far-infrared photodetectors based on graphene/black-AsP heterostructures. Optics Express, 2020, 28, 2480.	1.7	27
43	Impact of transit-time and capture effects on high-frequency performance of multiple quantum-well infrared photodetectors. IEEE Transactions on Electron Devices, 1998, 45, 293-298.	1.6	26
44	Periodic electric-field domains in optically excited multiple-quantum-well structures. Physical Review B, 2000, 61, 2742-2748.	1.1	26
45	Self-consistent model for quantum well infrared photodetectors with thermionic injection under dark conditions. Journal of Applied Physics, 2002, 92, 207-213.	1.1	26
46	Electrically induced<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>n</mml:mi><mml:mtext>â˘</mml:mtext><mml:mi>i</mml:mi><mml:mtext>â˘</mml:mtext><m in multiple graphene layer structures. Physical Review B, 2010, 82, .	1.1	26
47	Tunneling Currentâ€"Voltage Characteristics of Graphene Field-Effect Transistor. Applied Physics Express, 2008, 1, 013001.	1.1	24
48	Negative and positive terahertz and infrared photoconductivity in uncooled graphene. Optical Materials Express, 2019, 9, 585.	1.6	24
49	Quantum Well Infrared Photodetector with Optical Output. Japanese Journal of Applied Physics, 1995, 34, L38-L40.	0.8	23
50	Thermionic and tunneling transport mechanisms in graphene fieldâ€effect transistors. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1527-1533.	0.8	22
51	Negative terahertz conductivity and amplification of surface plasmons in grapheneâ€"black phosphorus injection laser heterostructures. Physical Review B, 2019, 100, .	1.1	21
52	Phenomenological theory of electric-field domains induced by infrared radiation in multiple quantum well structures. Physical Review B, 2000, 62, 7268-7274.	1.1	20
53	Graphene vertical cascade interband terahertz and infrared photodetectors. 2D Materials, 2015, 2, 025002.	2.0	20
54	Resonant detection of modulated terahertz radiation in micromachined high-electron-mobility transistor. Applied Physics Letters, 2007, 90, 203503.	1.5	19

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55	Electrical modulation of terahertz radiation using graphene-phosphorene heterostructures. Semiconductor Science and Technology, 2018, 33, 124010.	1.0	19
56	Population inversion of photoexcited electrons and holes in graphene and its negative terahertz conductivity. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 261-264.	0.8	18
57	Graphene vertical hot-electron terahertz detectors. Journal of Applied Physics, 2014, 116, 114504.	1.1	18
58	Double injection, resonant-tunneling recombination, and current-voltage characteristics in double-graphene-layer structures. Journal of Applied Physics, 2014, 115, .	1.1	18
59	Electron Capture in van der Waals Graphene-Based Heterostructures with WS₂ Barrier Layers. Journal of the Physical Society of Japan, 2015, 84, 094703.	0.7	18
60	Two-dimensional plasmons in lateral carbon nanotube network structures and their effect on the terahertz radiation detection. Journal of Applied Physics, 2016, 120, 044501.	1.1	18
61	Nonlinear response of infrared photodetectors based on van der Waals heterostructures with graphene layers. Optics Express, 2017, 25, 5536.	1.7	18
62	S-Shaped Current-Voltage Characteristics of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msup><mml:mi>n</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>i</mml:mi></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>n</m	1.5	18
63	Quasiperiodicity route to chaos in cardiac conduction model. Communications in Nonlinear Science and Numerical Simulation, 2017, 42, 370-378.	1.7	17
64	Infrared photodetectors based on graphene van der Waals heterostructures. Infrared Physics and Technology, 2017, 84, 72-81.	1.3	17
65	Lateral terahertz hot-electron bolometer based on an array of Sn nanothreads in GaAs. Journal Physics D: Applied Physics, 2018, 51, 135101.	1.3	17
66	Effect of Donor Space Charge on Electron Capture Processes in Quantum Well Infrared Photodetectors. Japanese Journal of Applied Physics, 1999, 38, 6650-6653.	0.8	16
67	Resonant plasmonic terahertz detection in vertical graphene-base hot-electron transistors. Journal of Applied Physics, 2015, 118, .	1.1	16
68	High-Frequency Response of Intersubband Infrared Photodetectors with a Multiple Quantum Well Structure. Japanese Journal of Applied Physics, 1997, 36, 2596-2600.	0.8	15
69	Analysis of resonant detection of terahertz radiation in high-electron mobility transistor with a nanostring/carbon nanotube as the mechanically floating gate. Journal of Applied Physics, 2008, 104, .	1.1	15
70	High-frequency properties of a graphene nanoribbon field-effect transistor. Journal of Applied Physics, 2008, 104, 114505.	1.1	15
71	Real-space-transfer mechanism of negative differential conductivity in gated graphene-phosphorene hybrid structures: Phenomenological heating model. Journal of Applied Physics, 2018, 124, 114501.	1.1	15
72	Graphene-based plasmonic metamaterial for terahertz laser transistors. Nanophotonics, 2022, 11, 1677-1696.	2.9	15

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73	Multiple quantum-dot infrared phototransistors. Physica B: Condensed Matter, 1996, 227, 17-20.	1.3	13
74	Recharging Instability and Periodic Domain Structures in Multiple Quantum Well Infrared Photodetectors. Japanese Journal of Applied Physics, 1999, 38, L1388-L1390.	0.8	13
75	Plasma effects in lateral Schottky junction tunneling transit-time terahertz oscillator. Journal of Physics: Conference Series, 2006, 38, 228-233.	0.3	13
76	Interband infrared photodetectors based on HgTeâ€“CdHgTe quantum-well heterostructures. Optical Materials Express, 2018, 8, 1349.	1.6	13
77	Coulomb electron drag mechanism of terahertz plasma instability in n+-i-n-n+ graphene FETs with ballistic injection. Applied Physics Letters, 2021, 119, .	1.5	13
78	Effect of doping on the characteristics of infrared photodetectors based on van der Waals heterostructures with multiple graphene layers. Journal of Applied Physics, 2017, 122, .	1.1	12
79	Negative photoconductivity and hot-carrier bolometric detection of terahertz radiation in graphene-phosphorene hybrid structures. Journal of Applied Physics, 2019, 125, 151608.	1.1	12
80	Electric-field and space-charge distributions in InAs/GaAs quantum-dot infrared photodetectors: ensemble Monte Carlo particle modeling. Microelectronics Journal, 2003, 34, 411-414.	1.1	11
81	PLASMA WAVES IN TWO-DIMENSIONAL ELECTRON SYSTEMS AND THEIR APPLICATIONS. International Journal of High Speed Electronics and Systems, 2007, 17, 521-538.	0.3	11
82	Analytical device model for graphene bilayer field-effect transistors using weak nonlocality approximation. Journal of Applied Physics, 2011, 109, 064508.	1.1	11
83	Vertical electron transport in van der Waals heterostructures with graphene layers. Journal of Applied Physics, 2015, 117, 154504.	1.1	11
84	Comparison Studies of Infrared Phototransistors with a Quantum-Well and a Quantum-Wire Base. European Physical Journal Special Topics, 1996, 06, C3-157-C3-161.	0.2	11
85	Influence of Electron Velocity Overshoot Effect on High-Frequency Characteristics of Quantum Well Infrared Photodetectors. Japanese Journal of Applied Physics, 1998, 37, 78-83.	0.8	10
86	Nonlinear dynamics of recharging processes in multiple quantum well structures excited by infrared radiation. Physical Review B, 2000, 62, 10292-10296.	1.1	10
87	Tunneling recombination in optically pumped graphene with electron-hole puddles. Applied Physics Letters, 2011, 99, .	1.5	10
88	Effect of self-consistent electric field on characteristics of graphene p-i-n tunneling transit-time diodes. Journal of Applied Physics, 2013, 113, .	1.1	10
89	Modulation characteristics of uncooled graphene photodetectors. Journal of Applied Physics, 2021, 129, .	1.1	10
90	Characteristics of pâ€“iâ€“n Terahertz and Infrared Photodiodes Based on Multiple Graphene Layer Structures. Japanese Journal of Applied Physics, 2011, 50, 070117.	0.8	10

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91	Monte Carlo modeling of transient recharging processes in quantum-well infrared photodetectors. IEEE Transactions on Electron Devices, 2000, 47, 1935-1942.	1.6	9
92	Negative terahertz dynamic conductivity in electrically induced lateral pâ€“iâ€“n junction in graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 719-721.	1.3	9
93	Characteristics of pâ€“iâ€“n Terahertz and Infrared Photodiodes Based on Multiple Graphene Layer Structures. Japanese Journal of Applied Physics, 2011, 50, 070117.	0.8	9
94	Comparison of Intersubband Quantum-Well and Interband Graphene-Layer Infrared Photodetectors. IEEE Journal of Quantum Electronics, 2018, 54, 1-8.	1.0	9
95	Optical pumping through a black-As absorbing-cooling layer in graphene-based heterostructure: thermo-diffusion model. Optical Materials Express, 2019, 9, 4061.	1.6	9
96	Theoretical Study of Recharging Instability in Quantum Well Infrared Photodetectors. Japanese Journal of Applied Physics, 1999, 38, 6654-6658.	0.8	8
97	Self-organization in multiple quantum well infrared photodetectors. Semiconductor Science and Technology, 2001, 16, 202-208.	1.0	8
98	Theoretical analysis of injection driven thermal light emitters based on graphene encapsulated by hexagonal boron nitride. Optical Materials Express, 2021, 11, 468.	1.6	8
99	Modeling of Heartbeat Dynamics with a System of Coupled Nonlinear Oscillators. Communications in Computer and Information Science, 2014, , 67-75.	0.4	8
100	Optical pumping in graphene-based terahertz/far-infrared superluminescent and laser heterostructures with graded-gap black-PxAs1â̂’x absorbing-cooling layers. Optical Engineering, 2019, 59, 1.	0.5	8
101	Effect of Coulomb Carrier Drag and Terahertz Plasma Instability in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msup><mml:mi>p</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>p</mml:mi></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>i</m	1.5	8
102	Terahertz response of metal-semiconductor-metal photodetectors. Journal of Applied Physics, 1998, 84, 6419-6425.	1.1	7
103	Concept of infrared photodetector based on grapheneâ€“graphene nanoribbon structure. Infrared Physics and Technology, 2013, 59, 137-141.	1.3	7
104	Sub-terahertz FET detector with self-assembled Sn-nanothreads. Journal Physics D: Applied Physics, 2020, 53, 075102.	1.3	7
105	Far-infrared and terahertz emitting diodes based on graphene/black-P and graphene/MoS2 heterostructures. Optics Express, 2020, 28, 24136.	1.7	7
106	Optically Controlled Plasma Resonances in Induced-Base Hot-Electron Transistors. Japanese Journal of Applied Physics, 1997, 36, 5472-5474.	0.8	6
107	Combined resonance and resonant detection of modulated terahertz radiation in a micromachined high-electron mobility transistor. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 277-281.	0.8	6
108	Ballistic Injection Terahertz Plasma Instability in Graphene n + â€•i â€“ n â€“ n + Fieldâ€Effect Transistors and Lateral Diodes. Physica Status Solidi (A) Applications and Materials Science, 0, , .	0.8	6

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109	Theoretical study of an infrared-to-visible wavelength quantum-well converter. Semiconductor Science and Technology, 1995, 10, 1272-1276.	1.0	5
110	High-Frequency Response of Metal-Semiconductor-Metal Photodetectors Limited by Dynamic and Recombination Effects. Japanese Journal of Applied Physics, 1998, 37, 6352-6357.	0.8	5
111	<title>Why QDIPs are still inferior to QWIPs: theoretical analysis</title>. , 2001, , .		5
112	Effect of near-ballistic photoelectron transport on resonant plasma-assisted photomixing in high-electron mobility transistors. Semiconductor Science and Technology, 2004, 19, S74-S76.	1.0	5
113	Resonant Terahertz Photomixing in Integrated High-Electron-Mobility Transistor and Quantum-Well Infrared Photodetector Device. Japanese Journal of Applied Physics, 2006, 45, 3648-3651.	0.8	5
114	Development of Simplified Model of Atrioventricular Node with Dual Pathway. , 2018, , .		5
115	Sn-nanothreads in GaAs matrix and their sub- and terahertz applications. Journal of Physics: Conference Series, 2018, 1092, 012166.	0.3	5
116	Heterostructure laser-transistors controlled by resonant-tunnelling electron extraction. Semiconductor Science and Technology, 1997, 12, 431-438.	1.0	4
117	Monte Carlo particle modeling of electron transport and capture processes in AlGaAs/GaAs multiple quantum-well infrared photodetectors. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 7, 120-123.	1.3	4
118	Population inversion in electrically and optically pumped graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 40, 317-320.	1.3	4
119	Negative terahertz conductivity in remotely doped graphene bilayer heterostructures. Journal of Applied Physics, 2015, 118, .	1.1	4
120	Recent advances in the research toward graphene-based terahertz lasers. , 2015, , .		4
121	Negative Terahertz Conductivity at Vertical Carrier Injection in a Black-Arsenic-Phosphorusâ€“Graphene Heterostructure Integrated With a Light-Emitting Diode. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-9.	1.9	4
122	Resonant-Tunneling Bipolar Transistors with a Quantum-Well Base. Japanese Journal of Applied Physics, 1996, 35, 5280-5283.	0.8	3
123	Comment on â€œPhotoconductivity mechanism of quantum well infrared photodetectors under localized photoexcitationâ€•[Appl. Phys. Lett. 73, 3432 (1998)]. Applied Physics Letters, 2000, 76, 4010-4011.	1.5	3
124	Analysis of dual-band quantum well photodetectors. Journal of Applied Physics, 2002, 91, 5887-5891.	1.1	3
125	Effect of coupling on the pacemaker synchronization in coupled oscillator ECG model. , 2014, , .		3
126	Infrared detection and photon energy up-conversion in graphene layer infrared photodetectors integrated with LEDs based on van der Waals heterostructures: Concept, device model, and characteristics. Infrared Physics and Technology, 2017, 85, 307-314.	1.3	3

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127	Device model for pixelless infrared image up-converters based on polycrystalline graphene heterostructures. Journal of Applied Physics, 2018, 123, 014503.	1.1	3
128	Optimization of Dual Pathway AV Nodal Conduction Model. Journal of Physics: Conference Series, 2019, 1372, 012078.	0.3	3
129	Multiple graphene-layer-based heterostructures with van der Waals barrier layers for terahertz superluminescent and laser diodes with lateral/vertical current injection. Semiconductor Science and Technology, 2020, 35, 085023.	1.0	3
130	Coulomb Drag by Injected Ballistic Carriers in Graphene n + â^'iâ^'nâ^'n + Structures: Doping and Temperature Effects. Physica Status Solidi (A) Applications and Materials Science, 0, , 2100535.	0.8	3
131	Coulomb drag and plasmonic effects in graphene field-effect transistors enable resonant terahertz detection. Applied Physics Letters, 2022, 120, 111102.	1.5	3
132	Pacemaking function of two simplified cell models. PLoS ONE, 2022, 17, e0257935.	1.1	3
133	Monte Carlo Modeling of Transient Effects in Resonant-Tunneling Bipolar Transistors. Japanese Journal of Applied Physics, 1997, 36, 5060-5062.	0.8	2
134	Capture and transit-time electron effects in high-frequency operation of multiple quantum well infrared photodetectors. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 142-145.	1.3	2
135	Terahertz graphene lasers: Injection versus optical pumping. , 2013, , .		2
136	Formation of second-degree atrioventricular blocks in the cardiac heterogeneous oscillator model. , 2015, 2015, 4491-4.		2
137	Graphene-based van der Waals heterostructures for emission and detection of terahertz radiation. Proceedings of SPIE, 2016, , .	0.8	2
138	Plasmonic terahertz antennas with high-aspect ratio metal gratings. EPJ Web of Conferences, 2018, 195, 02009.	0.1	2
139	Concepts of infrared and terahertz photodetectors based on vertical graphene van der Waals and HgTe-CdHgTe heterostructures. Opto-electronics Review, 2019, 27, 219-223.	2.4	2
140	Heat capacity of nonequilibrium electron-hole plasma in graphene layers and graphene bilayers. Physical Review B, 2021, 103, .	1.1	2
141	Bioradiolocation: Methods and Applications. Communications in Computer and Information Science, 2014, , 10-28.	0.4	2
142	Simulation of ectopic activity onset in border zones between normal and damaged myocardium with minimal ionic models. , 0, , .		2
143	Vertical Hot-electron Terahertz Detectors Based on Black-As1?xPx/graphene/black-As1?yPy Heterostructures. Sensors and Materials, 2019, 31, 2271.	0.3	2
144	Optimisation of bistable quantum well IR phototransistors. IEE Proceedings: Optoelectronics, 1997, 144, 283-286.	0.8	1

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145	<title>Quantum well and quantum dot infrared photodetectors: physics of operation and modeling</title>. , 2003, , .		1
146	Modeling of the excitation of terahertz plasma oscillations in a HEMT by ultrashort optical pulses. , 0, , .		1
147	Analytical and computer models of terahertz HEMT photomixer. , 2004, , .		1
148	Observation of Amplified Stimulated Terahertz Emission in Optically Pumped Epitaxial Graphene Heterostructures. , 2010, , .		1
149	Graphene-based electro-optical modulator: Concept and analysis. , 2012, , .		1
150	Terahertz emission and detection in double-graphene-layer structures. , 2014, , .		1
151	Challenges to create graphene terahertz lasers. Journal of Physics: Conference Series, 2014, 486, 012007.	0.3	1
152	Plasma resonant terahertz photomixers based on double graphene layer structures. Journal of Physics: Conference Series, 2014, 486, 012032.	0.3	1
153	Simulink heart model for simulation of the effect of external signals. , 2016, , .		1
154	Characteristics of vertically stacked graphene-layer infrared photodetectors. Solid-State Electronics, 2019, 155, 123-128.	0.8	1
155	Terahertz-wave generation using graphene: Toward new types of terahertz lasers. Proceedings of the IEEE, 2024, , 1-13.	16.4	1
156	Ensemble Monte Carlo Particle Modeling of IngaAs/InP Uni-Traveling-Carrier Photodiodes. , 2001, , 312-315.		1
157	PLASMA WAVES IN TWO-DIMENSIONAL ELECTRON SYSTEMS AND THEIR APPLICATIONS. Selected Topics in Electornics and Systems, 2008, , 77-94.	0.2	1
158	Broadband Terahertz-Light Emission by Current-Injection Distributed-Feedback Dual-Gate Graphene-Channel Field-Effect Transistor. , 2017, , .		1
159	Modeling of Lateral Hot-Electron Phototransistor for Long-Wave Length Infrared Radiation. Japanese Journal of Applied Physics, 1995, 34, 206.	0.8	1
160	Graphene-based 2D-heterostructures for terahertz lasers and amplifiers. , 2019, , .		1
161	Far-infrared photodetection in graphene nanoribbon heterostructures with black-phosphorus base layers. Optical Engineering, 2020, 60, .	0.5	1
162	Injection Lasers With a Resonant-Tunneling Controlling Structure. , 1996, , .		0

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163	Intersubband infrared phototransistors with a quantum-wire base. , 0, , .		0
164	Limits Of Ultrahigh-speed Operation Of Quantum-well Infrared Photodetectors. , 0, , .		0
165	Monte Carlo particle modeling of electron velocity overshoot effect in MSM photodiodes. , 0, , .		0
166	Terahertz operation of GaAs/AlGaAs metal-semiconductor-metal photodetectors. , 0, , .		0
167	Terahertz response of MSM photodiodes: Monte Carlo simulation. , 0, , .		0
168	Monte Carlo simulation of terahertz response of MSM photodetectors. , 0, , .		0
169	Modeling of the terahertz response of metal-semiconductor-metal photodetectors. , 1999, , .		0
170	Self-organization and pulsing in multiple quantum well structures excited by infrared radiation. , 0, , .		0
171	Physical model and characteristics of quantum dot infrared photodetectors. , 0, , .		0
172	Periodic electric-field and charge domains in multiple quantum well infrared photodetectors. Infrared Physics and Technology, 2001, 42, 249-257.	1.3	0
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