Maxim Ryzhii

List of Publications by Citations

166 papers	2,907 citations	29 h-index	47 g-index
221 ext. papers	3,463 ext. citations	2.4 avg, IF	5.14 L-index

#	Paper	IF	Citations
166	Negative dynamic conductivity of graphene with optical pumping. *Journal of Applied Physics*, **2007**, 101, 083114	2.5	256
165	Graphene-based devices in terahertz science and technology. *Journal Physics D: Applied Physics*, **2012**, 45, 303001	3	151
164	Toward the creation of terahertz graphene injection laser. *Journal of Applied Physics*, **2011**, 110, 094503	2.5	111
163	Feasibility of terahertz lasing in optically pumped epitaxial multiple graphene layer structures. *Journal of Applied Physics*, **2009**, 106, 084507	2.5	109
162	Injection and Population Inversion in Electrically Induced p□ Junction in Graphene with Split Gates. *Japanese Journal of Applied Physics*, **2007**, 46, L151-L153	1.4	80
161	Comparison of dark current, responsivity and detectivity in different intersubband infrared photodetectors. *Semiconductor Science and Technology*, **2004**, 19, 8-16	1.8	73
160	Graphene bilayer field-effect phototransistor for terahertz and infrared detection. *Physical Review B*, **2009**, 79,	3.3	71
159	. *IEEE Transactions on Terahertz Science and Technology*, **2013**, 3, 63-71	3.4	69
158	Double graphene-layer plasma resonances terahertz detector. *Journal Physics D: Applied Physics*, **2012**, 45, 302001	3	66
157	Terahertz Laser with Optically Pumped Graphene Layers and Fabri□Perot Resonator. *Applied Physics Express*, **2009**, 2, 092301	2.4	66
156	Device Model for Graphene Nanoribbon Phototransistor. *Applied Physics Express*, **2008**, 1, 063002	2.4	63
155	Terahertz and infrared photodetection using p-i-n multiple-graphene-layer structures. *Journal of Applied Physics*, **2010**, 107, 054512	2.5	62
154	Terahertz-Wave Generation Using Graphene: Toward New Types of Terahertz Lasers. *IEEE Journal of Selected Topics in Quantum Electronics*, **2013**, 19, 8400209-8400209	3.8	51
153	Terahertz and infrared photodetectors based on multiple graphene layer and nanoribbon structures. *Opto-electronics Review*, **2012**, 20,	2.4	47
152	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	2.5	47
151	Effect of plasma resonances on dynamic characteristics of double graphene-layer optical modulator. *Journal of Applied Physics*, **2012**, 112, 104507	2.5	44
150	Terahertz light-emitting graphene-channel transistor toward single-mode lasing. *Nanophotonics*, **2018**, 7, 741-752	6.3	38

149	Graphene Tunneling Transit-Time Terahertz Oscillator Based on Electrically Induced p-i-n Junction. *Applied Physics Express*, **2009**, 2, 034503	2.4	38
148	Current-voltage characteristics of a graphene-nanoribbon field-effect transistor. *Journal of Applied Physics*, **2008**, 103, 094510	2.5	38
147	Device model for graphene bilayer field-effect transistor. *Journal of Applied Physics*, **2009**, 105, 104510	2.5	37
146	Dynamic effects in double graphene-layer structures with inter-layer resonant-tunnelling negative conductivity. *Journal Physics D: Applied Physics*, **2013**, 46, 315107	3	36
145	Terahertz photomixing using plasma resonances in double-graphene layer structures. *Journal of Applied Physics*, **2013**, 113, 174506	2.5	36
144	Effect of Heating and Cooling of Photogenerated Electron-Hole Plasma in Optically Pumped Graphene on Population Inversion. *Japanese Journal of Applied Physics*, **2011**, 50, 094001	1.4	36
143	Injection terahertz laser using the resonant inter-layer radiative transitions in double-graphene-layer structure. *Applied Physics Letters*, **2013**, 103, 163507	3.4	34
142	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	2	32
141	Graphene terahertz uncooled bolometers. *Journal Physics D: Applied Physics*, **2013**, 46, 065102	3	30
140	Terahertz and infrared detectors based on graphene structures. *Infrared Physics and Technology*, **2011**, 54, 302-305	2.7	30
139	Monte Carlo analysis of ultrafast electron transport in quantum well infrared photodetectors. *Applied Physics Letters*, **1998**, 72, 842-844	3.4	30
138	Graphene Nanoribbon Phototransistor: Proposal and Analysis. *Japanese Journal of Applied Physics*, **2009**, 48, 04C144	1.4	29
137	Double-graphene-layer terahertz laser: concept, characteristics, and comparison. *Optics Express*, **2013**, 21, 31567-77	3.3	28
136	Double injection in graphene p-i-n structures. *Journal of Applied Physics*, **2013**, 113, 244505	2.5	27
135	Terahertz photoconductive emitter with dielectric-embedded high-aspect-ratio plasmonic grating for operation with low-power optical pumps. *AIP Advances*, **2019**, 9, 015112	1.5	27
134	Graphene materials and devices in terahertz science and technology. *MRS Bulletin*, **2012**, 37, 1235-1243	3.2	26
133	Voltage-tunable terahertz and infrared photodetectors based on double-graphene-layer structures. *Applied Physics Letters*, **2014**, 104, 163505	3.4	25
132	A heterogeneous coupled oscillator model for simulation of ECG signals. *Computer Methods and Programs in Biomedicine*, **2014**, 117, 40-9	6.9	25

131	Electrically induced n-i-p junctions in multiple graphene layer structures. *Physical Review B*, **2010**, 82,	3.3	25
130	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	1.4	25
129	Effect of Heating and Cooling of Photogenerated Electron–Hole Plasma in Optically Pumped Graphene on Population Inversion. *Japanese Journal of Applied Physics*, **2011**, 50, 094001	1.4	24
128	Self-consistent model for quantum well infrared photodetectors with thermionic injection under dark conditions. *Journal of Applied Physics*, **2002**, 92, 207-213	2.5	24
127	Monte Carlo modeling of electron velocity overshoot effect in quantum well infrared photodetectors. *Journal of Applied Physics*, **1998**, 84, 3403-3408	2.5	24
126	Mechanism of self-excitation of terahertz plasma oscillations in periodically double-gated electron channels. *Journal of Physics Condensed Matter*, **2008**, 20, 384207	1.8	23
125	Periodic electric-field domains in optically excited multiple-quantum-well structures. *Physical Review B*, **2000**, 61, 2742-2748	3.3	23
124	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	2.9	22
123	Tunneling Current–Voltage Characteristics of Graphene Field-Effect Transistor. *Applied Physics Express*, **2008**, 1, 013001	2.4	22
122	Thermionic and tunneling transport mechanisms in graphene field-effect transistors. *Physica Status Solidi (A) Applications and Materials Science*, **2008**, 205, 1527-1533	1.6	21
121	Resonant plasmonic terahertz detection in graphene split-gate field-effect transistors with lateral p-i-n junctions. *Journal Physics D: Applied Physics*, **2016**, 49, 315103	3	21
120	Graphene vertical cascade interband terahertz and infrared photodetectors. *2D Materials*, **2015**, 2, 025002	5.9	19
119	Negative and positive terahertz and infrared photoconductivity in uncooled graphene. *Optical Materials Express*, **2019**, 9, 585	2.6	19
118	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		17
117	Phenomenological theory of electric-field domains induced by infrared radiation in multiple quantum well structures. *Physical Review B*, **2000**, 62, 7268-7274	3.3	17
116	Quantum Well Infrared Photodetector with Optical Output. *Japanese Journal of Applied Physics*, **1995**, 34, L38-L40	1.4	17
115	Electron Capture in van der Waals Graphene-Based Heterostructures with WS2 Barrier Layers. *Journal of the Physical Society of Japan*, **2015**, 84, 094703	1.5	16
114	Nonlinear response of infrared photodetectors based on van der Waals heterostructures with graphene layers. *Optics Express*, **2017**, 25, 5536-5549	3.3	16

113	Two-dimensional plasmons in lateral carbon nanotube network structures and their effect on the terahertz radiation detection. *Journal of Applied Physics*, **2016**, 120, 044501	2.5	16
112	Cardiac Conduction Model for Generating 12 Lead ECG Signals With Realistic Heart Rate Dynamics. *IEEE Transactions on Nanobioscience*, **2018**, 17, 525-532	3.4	16
111	Effect of Donor Space Charge on Electron Capture Processes in Quantum Well Infrared Photodetectors. *Japanese Journal of Applied Physics*, **1999**, 38, 6650-6653	1.4	15
110	Far-infrared photodetectors based on graphene/black-AsP heterostructures. *Optics Express*, **2020**, 28, 2480-2498	3.3	15
109	Infrared photodetectors based on graphene van der Waals heterostructures. *Infrared Physics and Technology*, **2017**, 84, 72-81	2.7	14
108	High-frequency properties of a graphene nanoribbon field-effect transistor. *Journal of Applied Physics*, **2008**, 104, 114505	2.5	14
107	Electrical modulation of terahertz radiation using graphene-phosphorene heterostructures. *Semiconductor Science and Technology*, **2018**, 33, 124010	1.8	14
106	Quasiperiodicity route to chaos in cardiac conduction model. *Communications in Nonlinear Science and Numerical Simulation*, **2017**, 42, 370-378	3.7	13
105	Lateral terahertz hot-electron bolometer based on an array of Sn nanothreads in GaAs. *Journal Physics D: Applied Physics*, **2018**, 51, 135101	3	13
104	High-Frequency Response of Intersubband Infrared Photodetectors with a Multiple Quantum Well Structure. *Japanese Journal of Applied Physics*, **1997**, 36, 2596-2600	1.4	13
103	Negative terahertz conductivity and amplification of surface plasmons in graphene–black phosphorus injection laser heterostructures. *Physical Review B*, **2019**, 100,	3.3	12
102	Resonant detection of modulated terahertz radiation in micromachined high-electron-mobility transistor. *Applied Physics Letters*, **2007**, 90, 203503	3.4	12
101	Multiple quantum-dot infrared phototransistors. *Physica B: Condensed Matter*, **1996**, 227, 17-20	2.8	12
100	Resonant plasmonic terahertz detection in vertical graphene-base hot-electron transistors. *Journal of Applied Physics*, **2015**, 118, 204501	2.5	11
99	Graphene vertical hot-electron terahertz detectors. *Journal of Applied Physics*, **2014**, 116, 114504	2.5	11
98	Interband infrared photodetectors based on HgTe□CdHgTe quantum-well heterostructures. *Optical Materials Express*, **2018**, 8, 1349	2.6	10
97	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, 054505	2.5	10
96	Analytical device model for graphene bilayer field-effect transistors using weak nonlocality approximation. *Journal of Applied Physics*, **2011**, 109, 064508	2.5	10

95	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, 024514	2.5	10
94	Plasma effects in lateral Schottky junction tunneling transit-time terahertz oscillator. *Journal of Physics: Conference Series*, **2006**, 38, 228-233	0.3	10
93	Recharging Instability and Periodic Domain Structures in Multiple Quantum Well Infrared Photodetectors. *Japanese Journal of Applied Physics*, **1999**, 38, L1388-L1390	1.4	10
92	Real-space-transfer mechanism of negative differential conductivity in gated graphene-phosphorene hybrid structures: Phenomenological heating model. *Journal of Applied Physics*, **2018**, 124, 114501	2.5	10
91	Negative photoconductivity and hot-carrier bolometric detection of terahertz radiation in graphene-phosphorene hybrid structures. *Journal of Applied Physics*, **2019**, 125, 151608	2.5	9
90	Influence of Electron Velocity Overshoot Effect on High-Frequency Characteristics of Quantum Well Infrared Photodetectors. *Japanese Journal of Applied Physics*, **1998**, 37, 78-83	1.4	9
89	Characteristics of p□□ Terahertz and Infrared Photodiodes Based on Multiple Graphene Layer Structures. *Japanese Journal of Applied Physics*, **2011**, 50, 070117	1.4	9
88	Comparison of Intersubband Quantum-Well and Interband Graphene-Layer Infrared Photodetectors. *IEEE Journal of Quantum Electronics*, **2018**, 54, 1-8	2	8
87	Effect of self-consistent electric field on characteristics of graphene p-i-n tunneling transit-time diodes. *Journal of Applied Physics*, **2013**, 113, 024503	2.5	8
86	Double injection, resonant-tunneling recombination, and current-voltage characteristics in double-graphene-layer structures. *Journal of Applied Physics*, **2014**, 115, 024506	2.5	8
85	Tunneling recombination in optically pumped graphene with electron-hole puddles. *Applied Physics Letters*, **2011**, 99, 173504	3.4	8
84	Electric-field and space-charge distributions in InAs/GaAs quantum-dot infrared photodetectors: ensemble Monte Carlo particle modeling. *Microelectronics Journal*, **2003**, 34, 411-414	1.8	8
83	Monte Carlo modeling of transient recharging processes in quantum-well infrared photodetectors. *IEEE Transactions on Electron Devices*, **2000**, 47, 1935-1942	2.9	8
82	Nonlinear dynamics of recharging processes in multiple quantum well structures excited by infrared radiation. *Physical Review B*, **2000**, 62, 10292-10296	3.3	8
81	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		8
80	Vertical electron transport in van der Waals heterostructures with graphene layers. *Journal of Applied Physics*, **2015**, 117, 154504	2.5	7
79	Characteristics of p□□ Terahertz and Infrared Photodiodes Based on Multiple Graphene Layer Structures. *Japanese Journal of Applied Physics*, **2011**, 50, 070117	1.4	7
78	Negative terahertz dynamic conductivity in electrically induced lateral p□□ junction in graphene. *Physica E: Low-Dimensional Systems and Nanostructures*, **2010**, 42, 719-721	3	7

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76	Theoretical Study of Recharging Instability in Quantum Well Infrared Photodetectors. *Japanese Journal of Applied Physics*, **1999**, 38, 6654-6658	1.4	7
75	Optical pumping through a black-As absorbing-cooling layer in graphene-based heterostructure: thermo-diffusion model. *Optical Materials Express*, **2019**, 9, 4061	2.6	7
74	S-Shaped Current-Voltage Characteristics of n+-i-n-n+ Graphene Field-Effect Transistors due to the Coulomb Drag of Quasiequilibrium Electrons by Ballistic Electrons. *Physical Review Applied*, **2021**, 16,	4.3	7
73	Concept of infrared photodetector based on graphene□graphene nanoribbon structure. *Infrared Physics and Technology*, **2013**, 59, 137-141	2.7	6
72	Optically Controlled Plasma Resonances in Induced-Base Hot-Electron Transistors. *Japanese Journal of Applied Physics*, **1997**, 36, 5472-5474	1.4	6
71	Terahertz response of metal-semiconductor-metal photodetectors. *Journal of Applied Physics*, **1998**, 84, 6419-6425	2.5	6
70	Modeling of Heartbeat Dynamics with a System of Coupled Nonlinear Oscillators. *Communications in Computer and Information Science*, **2014**, 67-75	0.3	6
69	Coulomb electron drag mechanism of terahertz plasma instability in n+-i-n-n+ graphene FETs with ballistic injection. *Applied Physics Letters*, **2021**, 119, 093501	3.4	6
68	Resonant Terahertz Photomixing in Integrated High-Electron-Mobility Transistor and Quantum-Well Infrared Photodetector Device. *Japanese Journal of Applied Physics*, **2006**, 45, 3648-3651	1.4	5
67	PLASMA WAVES IN TWO-DIMENSIONAL ELECTRON SYSTEMS AND THEIR APPLICATIONS. *International Journal of High Speed Electronics and Systems*, **2007**, 17, 521-538	0.5	5
66	High-Frequency Response of Metal-Semiconductor-Metal Photodetectors Limited by Dynamic and Recombination Effects. *Japanese Journal of Applied Physics*, **1998**, 37, 6352-6357	1.4	5
65	Optical pumping in graphene-based terahertz/far-infrared superluminescent and laser heterostructures with graded-gap black-PxAs1□ absorbing-cooling layers. *Optical Engineering*, **2019**, 59, 1	1.1	5
64	Heterostructure laser-transistors controlled by resonant-tunnelling electron extraction. *Semiconductor Science and Technology*, **1997**, 12, 431-438	1.8	4
63	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		4
62	Why QDIPs are still inferior to QWIPs: theoretical analysis **2001**,		4
61	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	3	4
60	Far-infrared and terahertz emitting diodes based on graphene/black-P and graphene/MoS heterostructures. *Optics Express*, **2020**, 28, 24136-24151	3.3	4

59	Sub-terahertz FET detector with self-assembled Sn-nanothreads. *Journal Physics D: Applied Physics*, **2020**, 53, 075102	3	4
58	Theoretical analysis of injection driven thermal light emitters based on graphene encapsulated by hexagonal boron nitride. *Optical Materials Express*, **2021**, 11, 468	2.6	4
57	Negative terahertz conductivity in remotely doped graphene bilayer heterostructures. *Journal of Applied Physics*, **2015**, 118, 183105	2.5	3
56	Population inversion in electrically and optically pumped graphene. *Physica E: Low-Dimensional Systems and Nanostructures*, **2007**, 40, 317-320	3	3
55	Effect of near-ballistic photoelectron transport on resonant plasma-assisted photomixing in high-electron mobility transistors. *Semiconductor Science and Technology*, **2004**, 19, S74-S76	1.8	3
54	Analysis of dual-band quantum well photodetectors. *Journal of Applied Physics*, **2002**, 91, 5887-5891	2.5	3
53	Comment on Photoconductivity mechanism of quantum well infrared photodetectors under localized photoexcitation [Appl. Phys. Lett. 73, 3432 (1998)]. *Applied Physics Letters*, **2000**, 76, 4010-4011	3.4	3
52	Theoretical study of an infrared-to-visible wavelength quantum-well converter. *Semiconductor Science and Technology*, **1995**, 10, 1272-1276	1.8	3
51	Graphene-based plasmonic metamaterial for terahertz laser transistors. *Nanophotonics*, **2022**,	6.3	3
50	Ballistic Injection Terahertz Plasma Instability in Graphene n + - i - n + Field-Effect Transistors and Lateral Diodes. *Physica Status Solidi (A) Applications and Materials Science*,	1.6	3
49	Modulation characteristics of uncooled graphene photodetectors. *Journal of Applied Physics*, **2021**, 129, 214503	2.5	3
48	Coulomb Drag by Injected Ballistic Carriers in Graphene n+-i-n+ Structures: Doping and Temperature Effects. *Physica Status Solidi (A) Applications and Materials Science*,2100535	1.6	3
47	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	1.8	2
46	Device model for pixelless infrared image up-converters based on polycrystalline graphene heterostructures. *Journal of Applied Physics*, **2018**, 123, 014503	2.5	2
45	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	2.7	2
44	Formation of second-degree atrioventricular blocks in the cardiac heterogeneous oscillator model. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 4491-4	0.9	2
43	Graphene-Based Terahertz Devices: Concepts and Characteristics **2010**, 293-306		2
42	Resonant-Tunneling Bipolar Transistors with a Quantum-Well Base. *Japanese Journal of Applied Physics*, **1996**, 35, 5280-5283	1.4	2

41	Graphene-based van der Waals heterostructures for emission and detection of terahertz radiation **2016**,		2
40	Sn-nanothreads in GaAs matrix and their sub- and terahertz applications. *Journal of Physics: Conference Series*, **2018**, 1092, 012166	0.3	2
39	Effect of Coulomb Carrier Drag and Terahertz Plasma Instability in p+ - p - i - . *Physical Review Applied*, **2021**, 16,	4.3	2
38	Recent advances in the research toward graphene-based terahertz lasers **2015**,		1
37	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	1
36	Terahertz emission and detection in double-graphene-layer structures **2014**,		1
35	Challenges to create graphene terahertz lasers. *Journal of Physics: Conference Series*, **2014**, 486, 012007	0.3	1
34	Plasma resonant terahertz photomixers based on double graphene layer structures. *Journal of Physics: Conference Series*, **2014**, 486, 012032	0.3	1
33	Effect of coupling on the pacemaker synchronization in coupled oscillator ECG model **2014**,		1
32	Graphene-based electro-optical modulator: Concept and analysis **2012**,		1
31	Optimisation of bistable quantum well IR phototransistors. *IEE Proceedings: Optoelectronics*, **1997**, 144, 283-286		1
30	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	3	1
29	Modeling of the excitation of terahertz plasma oscillations in a HEMT by ultrashort optical pulses		1
28	Quantum well and quantum dot infrared photodetectors: physics of operation and modeling **2003**,		1
27	PLASMA WAVES IN TWO-DIMENSIONAL ELECTRON SYSTEMS AND THEIR APPLICATIONS. *Selected Topics in Electornics and Systems*, **2008**, 77-94	0	1
26	Broadband Terahertz-Light Emission by Current-Injection Distributed-Feedback Dual-Gate Graphene-Channel Field-Effect Transistor **2017**,		1
25	Graphene-based 2D-heterostructures for terahertz lasers and amplifiers **2019**,		1
24	Bioradiolocation: Methods and Applications. *Communications in Computer and Information Science*, **2014**, 10-28	0.3	1

23	Ensemble Monte Carlo Particle Modeling of IngaAs/InP Uni-Traveling-Carrier Photodiodes **2001**, 312-315		1
22	Heat capacity of nonequilibrium electron-hole plasma in graphene layers and graphene bilayers. *Physical Review B*, **2021**, 103,	3.3	1
21	Simulink heart model for simulation of the effect of external signals **2016**,		1
20	Negative Terahertz Conductivity at Vertical Carrier Injection in a Black-Arsenic-Phosphorus□Graphene Heterostructure Integrated With a Light-Emitting Diode. *IEEE Journal of Selected Topics in Quantum Electronics*, **2019**, 25, 1-9	3.8	1
19	Development of Simplified Model of Atrioventricular Node with Dual Pathway **2018**,		1
18	Plasmonic terahertz antennas with high-aspect ratio metal gratings. *EPJ Web of Conferences*, **2018**, 195, 02009	0.3	1
17	Optimization of Dual Pathway AV Nodal Conduction Model. *Journal of Physics: Conference Series*, **2019**, 1372, 012078	0.3	0
16	Coulomb drag and plasmonic effects in graphene field-effect transistors enable resonant terahertz detection. *Applied Physics Letters*, **2022**, 120, 111102	3.4	0
15	Pacemaking function of two simplified cell models.. *PLoS ONE*, **2022**, 17, e0257935	3.7	0
14	Dynamic Conductivity and Two-Dimensional Plasmons in Lateral CNT Networks. *International Journal of High Speed Electronics and Systems*, **2017**, 26, 1740004	0.5	
13	Dynamic Conductivity and Two-Dimensional Plasmons in Lateral CNT Networks. *Selected Topics in Electornics and Systems*, **2017**, 109-118	0	
12	Characteristics of vertically stacked graphene-layer infrared photodetectors. *Solid-State Electronics*, **2019**, 155, 123-128	1.7	
11	Terahertz Wave Generation Using Graphene and Compound Semiconductor Nano-Heterostructures. *Nanostructure Science and Technology*, **2015**, 237-261	0.9	
10	Self-consistent surface charges and electric field in p-i-n tunneling transit-time diodes based on single- and multiple-layer graphene structures. *Journal of Physics: Conference Series*, **2014**, 486, 012011	0.3	
9	Graphene Terahertz Lasers: Injection versus Optical Pumping. *Materials Research Society Symposia Proceedings*, **2013**, 1505, 1		
8	Terahertz-wave generation using graphene. *Materials Research Society Symposia Proceedings*, **2012**, 1437, 36		
7	Modeling of plasma oscillations and terahertz photomixing in HEMT-like heterostructure with lateral Schottky junction **2005**, 6039, 176		
6	Periodic electric-field and charge domains in multiple quantum well infrared photodetectors. *Infrared Physics and Technology*, **2001**, 42, 249-257	2.7	

List of Publications

5	Comment on "local responsivity in quantum well photodetectors" [J. Appl. Phys. 86, 7059 (1999)]. *Journal of Applied Physics*, **2001**, 89, 6563-6564	2.5
4	Fast Modulation of a Laser-Phototransistor by Long-Wavelength Infrared Radiation **1996**, 615-617	
3	TERAHERTZ AND INFRARED PHOTODETECTORS BASED ON VERTICAL GRAPHENE VAN DER WAALS HETEROSTRUCTURES: CONCEPTS, FEATURES OF OPERATION AND CHARACTERISTICS **2017** , 159-167	
2	Plasmonic Enhancement of Terahertz Devices Efficiency. *International Journal of High Speed Electronics and Systems*, **2016**, 25, 1640019	0.5
1	Terahertz-wave generation using graphene: Toward new types of terahertz lasers. *Proceedings of the IEEE*, **2020**, 1-13	14.3