Vladimir Mitin

List of Publications by Year
in descending order

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77	1,649	394286	302012
papers	citations	19 h-index	39 g-index

83	83	83	1015
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	Toward the creation of terahertz graphene injection laser. Journal of Applied Physics, 2011, 110, .	1.1	141
3	Terahertz lasers based on optically pumped multiple graphene structures with slot-line and dielectric waveguides. Journal of Applied Physics, 2010, 107, .	1.1	134
4	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
5	Comparison of dark current, responsivity and detectivity in different intersubband infrared photodetectors. Semiconductor Science and Technology, 2004, 19, 8-16.	1.0	83
6	On the detectivity of quantum-dot infrared photodetectors. Applied Physics Letters, 2001, 78, 3523-3525.	1.5	75
7	Terahertz and infrared photodetection using p-i-n multiple-graphene-layer structures. Journal of Applied Physics, 2010, 107, .	1.1	73
8	Terahertz and infrared photodetectors based on multiple graphene layer and nanoribbon structures. Opto-electronics Review, 2012, 20, .	2.4	53
9	Effect of plasma resonances on dynamic characteristics of double graphene-layer optical modulator. Journal of Applied Physics, 2012, 112, .	1.1	50
10	Terahertz photomixing using plasma resonances in double-graphene layer structures. Journal of Applied Physics, 2013, 113, .	1.1	47
11	Graphene Tunneling Transit-Time Terahertz Oscillator Based on Electrically Induced pâ€“iâ€“n Junction. Applied Physics Express, 0, 2, 034503.	1.1	45
12	Graphene terahertz uncooled bolometers. Journal Physics D: Applied Physics, 2013, 46, 065102.	1.3	38
13	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
14	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
15	Large effects due to electronâ€“phonon-impurity interference in the resistivity of Pt/C-Ga composite nanowires. Applied Physics Letters, 2004, 84, 3828-3830.	1.5	33
16	Voltage-tunable terahertz and infrared photodetectors based on double-graphene-layer structures. Applied Physics Letters, 2014, 104, .	1.5	32
17	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
18	Far-infrared photodetectors based on graphene/black-AsP heterostructures. Optics Express, 2020, 28, 2480.	1.7	27

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19	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><mml:mi>i</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>p</mml:mi></mml:mrow></mml:math> transition in multiple graphene layer structures. Physical Review B, 2010, 82, .	1.1	26
20	Negative and positive terahertz and infrared photoconductivity in uncooled graphene. Optical Materials Express, 2019, 9, 585.	1.6	24
21	Electrical modulation of terahertz radiation using graphene-phosphorene heterostructures. Semiconductor Science and Technology, 2018, 33, 124010.	1.0	19
22	Graphene vertical hot-electron terahertz detectors. Journal of Applied Physics, 2014, 116, 114504.	1.1	18
23	Double injection, resonant-tunneling recombination, and current-voltage characteristics in double-graphene-layer structures. Journal of Applied Physics, 2014, 115, .	1.1	18
24	Nonlinear response of infrared photodetectors based on van der Waals heterostructures with graphene layers. Optics Express, 2017, 25, 5536.	1.7	18
25	Graphene terahertz photodetectors <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</mml:mi></mml:math>	1.5	18
26	Infrared photodetectors based on graphene van der Waals heterostructures. Infrared Physics and Technology, 2017, 84, 72-81.	1.3	17
27	Negative terahertz conductivity in disordered graphene bilayers with population inversion. Applied Physics Letters, 2015, 106, 113501.	1.5	16
28	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
29	Graphene-based plasmonic metamaterial for terahertz laser transistors. Nanophotonics, 2022, 11, 1677-1696.	2.9	15
30	Photon Number-Resolved Detection With Sequentially Connected Nanowires. IEEE Transactions on Applied Superconductivity, 2007, 17, 289-292.	1.1	14
31	Plasma effects in lateral Schottky junction tunneling transit-time terahertz oscillator. Journal of Physics: Conference Series, 2006, 38, 228-233.	0.3	13
32	Damping of plasma waves in twoâ€dimensional electron systems due to contacts. Physica Status Solidi (B): Basic Research, 2009, 246, 2146-2149.	0.7	13
33	Interband infrared photodetectors based on HgTeâ€“CdHgTe quantum-well heterostructures. Optical Materials Express, 2018, 8, 1349.	1.6	13
34	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
35	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
36	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

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37	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
38	Addressable photocharging of single quantum dots assisted with atomic force microscopy probe. Applied Physics Letters, 2009, 95, .	1.5	11
39	Analytical device model for graphene bilayer field-effect transistors using weak nonlocality approximation. Journal of Applied Physics, 2011, 109, 064508.	1.1	11
40	Vertical electron transport in van der Waals heterostructures with graphene layers. Journal of Applied Physics, 2015, 117, 154504.	1.1	11
41	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
42	Modulation characteristics of uncooled graphene photodetectors. Journal of Applied Physics, 2021, 129, .	1.1	10
43	Comparison of Intersubband Quantum-Well and Interband Graphene-Layer Infrared Photodetectors. IEEE Journal of Quantum Electronics, 2018, 54, 1-8.	1.0	9
44	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
45	Infrared detector based on modulation-doped quantum-dot structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4013-4016.	0.8	8
46	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
47	Optical pumping in graphene-based terahertz/far-infrared superluminescent and laser heterostructures with graded-gap black-PxAs1â^'x absorbing-cooling layers. Optical Engineering, 2019,	0.5	8
48	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
49	Far-infrared and terahertz emitting diodes based on graphene/black-P and graphene/MoS2 heterostructures. Optics Express, 2020, 28, 24136.	1.7	7
50	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
51	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
52	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
53	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
54	Coulomb drag and plasmonic effects in graphene field-effect transistors enable resonant terahertz detection. Applied Physics Letters, 2022, 120, 111102.	1.5	3

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55	Effect of contacts on terahertz plasma resonances in two-dimensional electron systems. , 2008, , .		2
56	Terahertz graphene lasers: Injection versus optical pumping. , 2013, , .		2
57	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
58	Heat capacity of nonequilibrium electron-hole plasma in graphene layers and graphene bilayers. Physical Review B, 2021, 103, .	1.1	2
59	Vertical Hot-electron Terahertz Detectors Based on Black-As1?xPx/graphene/black-As1?yPy Heterostructures. Sensors and Materials, 2019, 31, 2271.	0.3	2
60	Optoelectronic application of multi-layer epitaxial graphene on a Si substrate. , 2010, , .		1
61	Terahertz emission and detection in double-graphene-layer structures. , 2014, , .		1
62	PLASMA WAVES IN TWO-DIMENSIONAL ELECTRON SYSTEMS AND THEIR APPLICATIONS. Selected Topics in Electornics and Systems, 2008, , 77-94.	0.2	1
63	Far-infrared photodetection in graphene nanoribbon heterostructures with black-phosphorus base layers. Optical Engineering, 2020, 60, .	0.5	1
64	Extended summary: Nanoscale management of electron-phonon energy transfer. , 2008, , .		0
65	Numerical Simulation of Plasma Waves in High-Electron-Mobility Transistors Using Kinetic Transport Model. , 2009, , .		0
66	Optical Excitation of Graphene, Population Inversion, and Terahertz Lasing. AIP Conference Proceedings, 2011, , .	0.3	0
67	GRAPHENE TUNNELING TRANSIT-TIME DIODES: CONCEPT, CHARACTERISTICS, AND ULTIMATE PERFORMANCE. , 2013, , .		0
68	Quantum Dot Solar Cells with Nanoscale Barriers Around Dots: Experiment and Two-Diode Model Analysis. Selected Topics in Electornics and Systems, 2015, , 83-92.	0.2	0
69	Quantum Dot Solar Cells with Nanoscale Barriers Around Dots: Experiment and Two-Diode Model Analysis. International Journal of High Speed Electronics and Systems, 2015, 24, 1520005.	0.3	0
70	Plasmonic Enhancement of Terahertz Devices Efficiency. International Journal of High Speed Electronics and Systems, 2016, 25, 1640019.	0.3	0
71	Models for plasmonic THz detectors based on graphene split-gate FETs with lateral p-n junctions. , 2016, , .		0
72	Dynamic Conductivity and Two-Dimensional Plasmons in Lateral CNT Networks. International Journal of High Speed Electronics and Systems, 2017, 26, 1740004.	0.3	0

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73	Dynamic Conductivity and Two-Dimensional Plasmons in Lateral CNT Networks. Selected Topics in Electornics and Systems, 2017, , 109-118.	0.2	0
74	Optical Pumping of Graphene-Based Heterostructures with Black-Arsenic-Phosphorus Absorbing-Cooling Layer for Terahertz Lasing. , 2019, , .		0
75	Plasmonic Enhancement of Terahertz Devices Efficiency. , 2017, , .		0
76	TERAHERTZ AND INFRARED PHOTODETECTORS BASED ON VERTICAL GRAPHENE VAN DER WAALS HETEROSTRUCTURES: CONCEPTS, FEATURES OF OPERATION AND CHARACTERISTICS. , 2017, , 159-167.		0
77	Current Driven Plasma Instability in Graphene-FETs with Coulomb Electron Drag. , 2021, , .		0