

Sergey A Mikhailov

List of Publications by Year in descending order

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48
papers

4,272
citations

257450

24
h-index

233421

45
g-index

49
all docs

49
docs citations

49
times ranked

3458
citing authors

#	ARTICLE	IF	CITATIONS
1	Coherent Nonlinear Optical Response of Graphene. <i>Physical Review Letters</i> , 2010, 105, 097401.	7.8	934
2	New Electromagnetic Mode in Graphene. <i>Physical Review Letters</i> , 2007, 99, 016803.	7.8	720
3	Non-linear electromagnetic response of graphene. <i>Europhysics Letters</i> , 2007, 79, 27002.	2.0	389
4	Nonlinear electromagnetic response of graphene: frequency multiplication and the self-consistent-field effects. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 384204.	1.8	339
5	Highly tunable hybrid metamaterials employing split-ring resonators strongly coupled to graphene surface plasmons. <i>Nature Communications</i> , 2015, 6, 8969.	12.8	197
6	Theory of the giant plasmon-enhanced second-harmonic generation in graphene and semiconductor two-dimensional electron systems. <i>Physical Review B</i> , 2011, 84, .	3.2	184
7	Quantum theory of the third-order nonlinear electrodynamic effects of graphene. <i>Physical Review B</i> , 2016, 93, .	3.2	168
8	Plasma instability and amplification of electromagnetic waves in low-dimensional electron systems. <i>Physical Review B</i> , 1998, 58, 1517-1532.	3.2	144
9	Microwave-induced magnetotransport phenomena in two-dimensional electron systems: Importance of electrodynamic effects. <i>Physical Review B</i> , 2004, 70, .	3.2	122
10	Dielectric function and plasmons in graphene. <i>Europhysics Letters</i> , 2009, 87, 27005.	2.0	101
11	Electrically Tunable Optical Nonlinearities in Graphene-Covered SiN Waveguides Characterized by Four-Wave Mixing. <i>ACS Photonics</i> , 2017, 4, 3039-3044.	6.6	78
12	New Type of B-Periodic Magneto-Oscillations in a Two-Dimensional Electron System Induced by Microwave Irradiation. <i>Physical Review Letters</i> , 2004, 92, 236803.	7.8	77
13	Non-linear graphene optics for terahertz applications. <i>Microelectronics Journal</i> , 2009, 40, 712-715.	2.0	73
14	Theory of microwave-induced zero-resistance states in two-dimensional electron systems. <i>Physical Review B</i> , 2011, 83, .	3.2	69
15	Theory of the nonlinear optical frequency mixing effect in graphene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 924-927.	2.7	64
16	Intervalley plasmons in graphene. <i>Physical Review B</i> , 2010, 82, .	3.2	58
17	Quantum theory of third-harmonic generation in graphene. <i>Physical Review B</i> , 2014, 90, .	3.2	57
18	Graphene-based voltage-tunable coherent terahertz emitter. <i>Physical Review B</i> , 2013, 87, .	3.2	44

#	ARTICLE	IF	CITATIONS
19	Influence of contacts on the microwave response of a two-dimensional electron stripe. <i>Physical Review B</i> , 2006, 74, .	3.2	40
20	Nonlinear cyclotron resonance of a massless quasiparticle in graphene. <i>Physical Review B</i> , 2009, 79, .	3.2	39
21	Nonperturbative quasiclassical theory of the nonlinear electrodynamic response of graphene. <i>Physical Review B</i> , 2017, 95, .	3.2	39
22	Miniature quantum-well microwave spectrometer operating at liquid-nitrogen temperatures. <i>Applied Physics Letters</i> , 2005, 86, 044101.	3.3	32
23	Giant enhancement of the third harmonic in graphene integrated in a layered structure. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	30
24	Gate-Tunable Nonlinear Refraction and Absorption in Graphene-Covered Silicon Nitride Waveguides. <i>ACS Photonics</i> , 2018, 5, 4944-4950.	6.6	25
25	Theory of the strongly nonlinear electrodynamic response of graphene: A hot electron model. <i>Physical Review B</i> , 2019, 100, .	3.2	24
26	Third harmonic generation from graphene lying on different substrates: optical-phonon resonances and interference effects. <i>Optics Express</i> , 2017, 25, 3268.	3.4	20
27	Optical Kerr effect in graphene: Theoretical analysis of the optical heterodyne detection technique. <i>Physical Review B</i> , 2018, 97, .	3.2	20
28	Giant microwave photo-conductance of a tunnel point contact with a bridged gate. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	18
29	A new approach to the ground state of quantum Hall systems. Basic principles. <i>Physica B: Condensed Matter</i> , 2001, 299, 6-31.	2.7	16
30	An in-plane photoelectric effect in two-dimensional electron systems for terahertz detection. <i>Science Advances</i> , 2022, 8, eabi8398.	10.3	16
31	Nonlinear broadening of the plasmon linewidth in a graphene stripe. <i>New Journal of Physics</i> , 2012, 14, 115024.	2.9	14
32	Negative dynamic conductivity of a current-driven array of graphene nanoribbons. <i>Physical Review B</i> , 2016, 94, .	3.2	14
33	Resonant detection of microwave radiation in a circular two-dimensional electron system with quantum point contacts. <i>Applied Physics Letters</i> , 2005, 87, 092107.	3.3	13
34	Nonlinear Electromagnetic Response of a Uniform Electron Gas. <i>Physical Review Letters</i> , 2014, 113, 027405.	7.8	13
35	Microwave-induced zero-resistance states and second-harmonic generation in an ultraclean two-dimensional electron gas. <i>Physical Review B</i> , 2014, 89, .	3.2	11
36	Influence of Optical Nonlinearities on Plasma Waves in Graphene. <i>ACS Photonics</i> , 2017, 4, 3018-3022.	6.6	11

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37	Ferroelectric instability of two-dimensional crystals. Physical Review B, 2013, 88, .	3.2	10
38	Propagation of edge magnetoplasmons in semiconductor quantum-well structures. Applied Physics Letters, 2006, 89, 042109.	3.3	9
39	Radiative damping and synchronization in a graphene-based terahertz emitter. Journal of Applied Physics, 2014, 115, 203110.	2.5	8
40	Comment on "Graphene" A rather ordinary nonlinear optical material [Appl. Phys. Lett. 104, 161116 (2014)]. Applied Physics Letters, 2017, 111, .	3.3	8
41	Equations of macroscopic electrodynamics for two-dimensional crystals. APL Photonics, 2019, 4, 034501.	5.7	6
42	Reply to "Comment on "Theory of microwave-induced zero-resistance states in two-dimensional electron systems" and on "Microwave-induced zero-resistance states and second-harmonic generation in an ultraclean two-dimensional electron gas". Physical Review B, 2015, 92, .	3.2	4
43	Nonperturbative quasiclassical theory of graphene photoconductivity. Physical Review B, 2021, 103, .	3.2	2
44	Nonlinear Electrodynamics And Optics Of Graphene. , 2011, , .		1
45	On the Development of a Simulation Strategy to Model the Behavior of Graphene-Based Devices in Electromagnetic Simulators. IEEE Access, 2019, 7, 74111-74121.	4.2	1
46	Harmonics generation, saturable absorption and other nonlinear phenomena in graphene. , 2015, , .		0
47	Comment on "Photon-assisted electron transport through a quantum point contact in a microwave field" (JETP Lett. 102, 378 (2015)). JETP Letters, 2016, 103, 553-554.	1.4	0
48	Giant microwave-induced B-periodic magnetoresistance oscillations in a two-dimensional electron gas with a bridged-gate tunnel point contact. Physical Review B, 2017, 95, .	3.2	0