Oleg Kibis

List of Publications by Year
in descending order

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100 papers	1,985 citations	257101 24 h-index	264894 42 g-index
102 all docs	102 docs citations	102 times ranked	822 citing authors

#	Article	IF	Citations
1	Metal-insulator transition in graphene induced by circularly polarized photons. Physical Review B, 2010, 81, .	1.1	179
2	Generation of Terahertz Radiation by Hot Electrons in Carbon Nanotubes. Nano Letters, 2007, 7, 3414-3417.	4.5	100
3	Terahertz applications of carbon nanotubes. Superlattices and Microstructures, 2008, 43, 399-407.	1.4	99
4	Matter Coupling to Strong Electromagnetic Fields in Two-Level Quantum Systems with Broken Inversion Symmetry. Physical Review Letters, 2009, 102, 023601.	2.9	88
5	All-optical band engineering of gapped Dirac materials. Physical Review B, 2017, 95, .	1.1	79
6	Control of electronic transport in graphene by electromagnetic dressing. Scientific Reports, 2016, 6, 20082.	1.6	75
7	Superlattice properties of carbon nanotubes in a transverse electric field. Physical Review B, 2005, 71, .	1.1	73
8	Dissipationless Electron Transport in Photon-Dressed Nanostructures. Physical Review Letters, 2011, 107, 106802.	2.9	69
9	Transport properties of a two-dimensional electron gas dressed by light. Physical Review B, 2015, 91, .	1.1	61
10	Carbon nanotubes as a basis for terahertz emitters and detectors. Microelectronics Journal, 2009, 40, 776-778.	1.1	56
11	Terahertz processes in carbon nanotubes. Journal of Nanophotonics, 2010, 4, 041665.	0.4	52
12	Carbon Nanotubes: A New Type of Emitter in the Terahertz Range. Technical Physics Letters, 2005, 31, 671.	0.2	48
13	Band gap in graphene induced by vacuum fluctuations. Physical Review B, 2011, 84, .	1.1	45
14	Superlattice Properties of Helical Nanostructures in a Transverse Electric Field. Electromagnetics, 2005, 25, 425-435.	0.3	42
15	Magnetoelectronic properties of graphene dressed by a high-frequency field. Physical Review B, 2016, 93, .	1.1	41
16	MAGNETICALLY CONTROLLED TERAHERTZ ABSORPTION AND EMISSION IN CARBON NANOTUBES. International Journal of Modern Physics B, 2009, 23, 2846-2850.	1.0	37
17	Control of spin dynamics in a two-dimensional electron gas by electromagnetic dressing. Physical Review B, 2015, 92, .	1.1	37
18	Optically induced Lifshitz transition in bilayer graphene. Physical Review B, 2017, 96, .	1.1	36

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19	Asymmetric quantum dot in a microcavity as a nonlinear optical element. Physical Review A, 2012, 85, .	1.0	35
20	Magnetic properties of a two-dimensional electron gas strongly coupled to light. Physical Review B, 2016, 93, .	1.1	34
21	Periodic array of quantum rings strongly coupled to circularly polarized light as a topological insulator. Physical Review B, 2018, 97, .	1.1	34
22	Persistent current induced by vacuum fluctuations in a quantum ring. Physical Review B, 2013, 87, .	1.1	33
23	Resonance fluorescence from an asymmetric quantum dot dressed by a bichromatic electromagnetic field. Physical Review A, 2017, 95, .	1.0	31
24	Quantum ring with the Rashba spin-orbit interaction in the regime of strong light-matter coupling. Physical Review B, 2018, 97, .	1.1	28
25	Electrical rectification by magnetic edge states. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 699-702.	1.3	24
26	Electron-electron interaction in a spiral quantum wire. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 166, 393-394.	0.9	23
27	Electronic phenomena in chiral carbon nanotubes in the presence of a magnetic field. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 12, 741-744.	1.3	23
28	How to suppress the backscattering of conduction electrons?. Europhysics Letters, 2014, 107, 57003.	0.7	23
29	Magnetocontrolled quantum states in helicoidal tubules. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 178, 335-337.	0.9	22
30	Novel effects of electron-phonon interaction in quasi-two-dimensional structures located in a magnetic field. Journal of Experimental and Theoretical Physics, 1999, 88, 527-532.	0.2	22
31	Aharonov-Bohm effect for excitons in a semiconductor quantum ring dressed by circularly polarized light. Physical Review B, 2015, 91, .	1.1	22
32	Features of electron-phonon interaction in nanotubes with chiral symmetry placed in a magnetic field. Physics of the Solid State, 2001, 43, 2336-2343.	0.2	21
33	Optically induced Aharonov-Bohm effect in mesoscopic rings. Physical Review B, 2014, 90, .	1.1	21
34	New quantum electron transport phenomena in low-dimensional systems in a magnetic field. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 244, 432-436.	0.9	20
35	Possible new quantum macroscopic effect in low-dimensional structures: The appearance of an electromotive force in a standing acoustic wave. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 237, 292-296.	0.9	19
36	Anisotropic momentum transfer in low-dimensional electron systems in a magnetic field. JETP Letters, 1997, 66, 588-593.	0.4	18

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37	Persistent current induced by quantum light. Physical Review B, 2012, 86, .	1.1	18
38	Optically tunable spin transport on the surface of a topological insulator. New Journal of Physics, 2016, 18, 103014.	1.2	18
39	Datta-and-Das spin transistor controlled by a high-frequency electromagnetic field. Physical Review B, 2016, 93, .	1.1	18
40	Thermomagnetic effect in a two-dimensional electron system with an asymmetric quantizing potential. Physical Review B, 2000, 61, 15603-15605.	1.1	16
41	Semiconductor nanohelix in electric field: A superlattice of the new type. Technical Physics Letters, 2007, 33, 878-880.	0.2	16
42	Electron pairing in nanostructures driven by an oscillating field. Physical Review B, 2019, 99, .	1.1	14
43	Optically induced topological states on the surface of mercury telluride. Physical Review B, 2019, 99, .	1.1	14
44	Light-induced bound electron states in two-dimensional systems: Contribution to electron transport. Physical Review B, 2020, 102, .	1.1	13
45	Terahertz emitters and detectors based on carbon nanotubes. , 2006, , .		12
46	Superlattice properties of semiconductor nanohelices in a transverse electric field. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1899-1901.	1.3	12
47	Optically controlled periodical chain of quantum rings. Physical Review B, 2016, 93, .	1.1	12
48	Floquet engineering of the Luttinger Hamiltonian. Physical Review B, 2020, 102, .	1.1	11
49	Floquet control of dipolaritons in quantum wells. Optics Letters, 2017, 42, 2398.	1.7	11
50	Floquet engineering of excitons in semiconductor quantum dots. Physical Review B, 2022, 105, .	1.1	10
51	Carbon nanotubes as a basis for novel terahertz devices. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1766-1768.	1.3	8
52	Optically induced hybrid Boseâ€“Fermi system in quantum wells with different charge carriers. Optics Letters, 2021, 46, 5316.	1.7	8
53	Floquet theory of spin dynamics under circularly polarized light pulses. Physical Review A, 2022, 105, .	1.0	8
54	Electrodynamics of chiral carbon nanotubes in the helical parametrization scheme. Journal of Nanophotonics, 2007, 1, 013505.	0.4	7

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55	Mechanisms of terahertz emission from carbon nanotubes. Physica B: Condensed Matter, 2010, 405, 3054-3056.	1.3	7
56	Structure of surface electronic states in strained mercury telluride. New Journal of Physics, 2019, 21, 043016.	1.2	7
57	Optically induced persistent current in carbon nanotubes. Physical Review B, 2021, 103, .	1.1	7
58	Floquet Engineering of Gapped 2D Materials. Semiconductors, 2018, 52, 523-525.	0.2	6
59	Fano resonances in optical spectra of semiconductor quantum wells dressed by circularly polarized light. Optics Letters, 2021, 46, 50.	1.7	6
60	Asymmetry of elementary interactions in 2D systems in a magnetic field. Physica B: Condensed Matter, 1998, 256-258, 449-451.	1.3	5
61	Semiconductor quantum well irradiated by a two-mode electromagnetic field as a terahertz emitter. Physical Review A, 2018, 97, .	1.0	5
62	Optically induced Kondo effect in semiconductor quantum wells. Journal of Physics Condensed Matter, 2021, 33, 495302.	0.7	5
63	On the possibility of a terahertz light emitting diode based on a dressed quantum well. Scientific Reports, 2019, 9, 16320.	1.6	4
64	Helical nanostructures and Aharonov-Bohm quantum rings in a transverse electric field. AIP Conference Proceedings, 2007, , .	0.3	3
65	Terahertz Applications of Carbon Nanotubes and Graphene Nanoribbons. , 2015, , .		3
66	Electromagnetic Dressing of Graphene. Journal of Structural Chemistry, 2018, 59, 867-869.	0.3	3
67	Electronic properties of asymmetrical quantum dots dressed by laser field. Physica Status Solidi (B): Basic Research, 2012, 249, 914-917.	0.7	2
68	Band gaps induced by vacuum photons in closed semiconductor cavities. Physical Review A, 2014, 90, .	1.0	2
69	Semiconductor cavity QED: Band gap induced by vacuum fluctuations. Physical Review A, 2014, 89, .	1.0	2
70	Terahertz Optoelectronics of Quantum Rings and Nanohelices. Semiconductors, 2018, 52, 1813-1816.	0.2	2
71	Elimination of the electron-phonon interaction in superlattices in a quantizing magnetic field. Semiconductors, 1998, 32, 657-658.	0.2	1
72	Effect of the configuration of a quantum wire on the electron-phonon interaction. Semiconductors, 1999, 33, 1121-1123.	0.2	1

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73	Graphene coupling to circularly polarized photons. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1265-1268.	0.8	1
74	Electronic transport in a two-dimensional electron gas strongly coupled to light. , 2015, , .		1
75	Multiphoton dynamics of qutrits in the ultrastrong coupling regime with a quantized photonic field. Journal of Experimental and Theoretical Physics, 2015, 121, 925-933.	0.2	1
76	Multiphoton interaction of a qutrit with single-mode quantized field in the ultrastrong and deep strong coupling regimes. Journal of Nanophotonics, 2015, 9, 093064.	0.4	1
77	Aharonovâ€“Bohm effect induced by circularly polarized light. Superlattices and Microstructures, 2015, 87, 149-153.	1.4	1
78	Effect of a magnetic field on intersubband polaritons in a quantum well: strong to weak coupling conversion. Optics Letters, 2016, 41, 3595.	1.7	1
79	Topological Electronic States on the Surface of a Strained Gapless Semiconductor. Semiconductors, 2019, 53, 1867-1869.	0.2	1
80	Floquet engineering of 2D materials. Journal of Physics: Conference Series, 2020, 1461, 012064.	0.3	1
81	Floquet engineering of carbon nanotubes. Journal of Physics: Conference Series, 2021, 2015, 012063.	0.3	1
82	Anisotropic interaction between electrons and piezoelectric phonons in semiconductor heterojunctions in magnetic field. , 0, , .		0
83	New physical effects in MOS-structures. , 1998, , .		0
84	Anisotropic electron-phonon interaction in silicon inversion layers in magnetic field. , 0, , .		0
85	Photovoltaic effect in chiral carbon nanotubes in presence of a magnetic field. , 0, , .		0
86	Superlattice behavior of carbon nanotubes in a transverse electric field. , 2004, , .		0
87	A new type of superlattice based on carbon nanotubes. AIP Conference Proceedings, 2005, , .	0.3	0
88	Carbon nanotubes as terahertz emitters and detectors. AIP Conference Proceedings, 2007, , .	0.3	0
89	Lightâ€“matter coupling in nanostructures without an inversion center. Superlattices and Microstructures, 2010, 47, 216-218.	1.4	0
90	Defect-related transitions in luminescence of InAlAs on InP. Journal of Physics: Conference Series, 2017, 864, 012075.	0.3	0

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91	Electronic properties of quantum rings dressed by a high-frequency electromagnetic field. Journal of Physics: Conference Series, 2018, 1092, 012055.	0.3	0
92	Quantum Rings Dressed by a High-Frequency Electromagnetic Field. Semiconductors, 2018, 52, 1806-1808.	0.2	0
93	Electron-photonic topological states on the surface of a bulk semiconductor driven by a high-frequency field. Journal of Physics: Conference Series, 2020, 1461, 012063.	0.3	0
94	Fano resonances in quantum well absorption induced by electromagnetic dressing. AIP Conference Proceedings, 2020, , .	0.3	0
95	Prospective Terahertz Applications of Carbon Nanotubes. NATO Science for Peace and Security Series B: Physics and Biophysics, 2008, , 81-93.	0.2	0
96	Floquet Engineering of Structures Based on Gapless Semiconductors. Semiconductors, 2020, 54, 1734-1736.	0.2	0
97	Optical Control of Electronic States in Three-Dimensional Topological Insulators. Journal of Structural Chemistry, 2020, 61, 668-671.	0.3	0
98	Light-induced electron pairing in two-dimensional systems. Journal of Physics: Conference Series, 2021, 2015, 012062.	0.3	0
99	Irradiation-induced Kondo resonance in two-dimensional electron systems. Journal of Physics: Conference Series, 2021, 2015, 012056.	0.3	0
100	All-optical control of excitons in semiconductor quantum wells. Journal of Physics Condensed Matter, 2022, 34, 205301.	0.7	0