Oleg L Berman

List of Publications by Year
in descending order

59	1,017	471509	434195
papers	citations	17 h-index	31 g-index

59	59	59	644
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Superconducting photonic crystals: Numerical calculations of the band structure. Physical Review B, 2006, 74, .	3.2	90
2	Bose-Einstein condensation and superfluidity of magnetoexcitons in bilayer graphene. Physical Review B, 2008, 77, .	3.2	74
3	Magnetoplasmons in layered graphene structures. Physical Review B, 2008, 78, .	3.2	72
4	High-temperature superfluidity of the two-component Bose gas in a transition metal dichalcogenide bilayer. Physical Review B, 2016, 93, .	3.2	67
5	Collective properties of indirect excitons in coupled quantum wells in a random field. Physical Review B, 2004, 70, .	3.2	53
6	Theory of Bose-Einstein condensation and superfluidity of two-dimensional polaritons in an in-plane harmonic potential. Physical Review B, 2008, 77, .	3.2	50
7	Superfluidity of dipolar excitons in a transition metal dichalcogenide double layer. Physical Review B, 2017, 96, .	3.2	46
8	Superfluidity of dipole excitons in the presence of band gaps in two-layer graphene. Physical Review B, 2012, 85, .	3.2	41
9	Graphene-based one-dimensional photonic crystal. Journal of Physics Condensed Matter, 2012, 24, 015305.	1.8	41
10	Bose-Einstein condensation and superfluidity of dipolar excitons in a phosphorene double layer. Physical Review B, 2017, 96, .	3.2	40
11	Graphene-based photonic crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 4784-4786.	2.1	39
12	Coupling of two Dirac particles. Physical Review A, 2013, 87, .	2.5	33
13	Graphene nanoribbon based spaser. Physical Review B, 2013, 88, .	3.2	29
14	Superfluidity of indirect excitons and biexcitons in coupled quantum wells and superlattices. Journal of Physics Condensed Matter, 2002, 14, 12457-12475.	1.8	25
15	Drag effects in a system of electrons and microcavity polaritons. Physical Review B, 2010, 82, .	3.2	25
16	Collective properties of magnetobiexcitons in quantum wells and graphene superlattices. Physical Review B, 2008, 78, .	3.2	24
17	Self-consistent density matrix algorithm for electronic structure and excitations of molecules and aggregates. Journal of Chemical Physics, 2003, 119, 12194-12204.	3.0	18
18	Bose-Einstein condensation of trapped polaritons in two-dimensional electron-hole systems in a high magnetic field. Physical Review B, 2009, 80, .	3.2	17

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19	Optical absorption by indirect excitons in a transition metal dichalcogenide/hexagonal boron nitride heterostructure. Journal of Physics Condensed Matter, 2018, 30, 225001.	1.8	17
20	Can we move photons?. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 3681-3684.	2.1	12
21	Superfluidity and collective properties of excitonic polaritons in gapped graphene in a microcavity. Physical Review B, 2012, 86, .	3.2	12
22	Superfluidity of dirty indirect excitons and magnetoexcitons in a two-dimensional trap. Physical Review B, 2006, 73, .	3.2	11
23	Can freestanding Xene monolayers behave as excitonic insulators?. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 482-486.	2.1	11
24	Evaporative cooling and condensation of two-dimensional polaritons in an in-plane harmonic potential. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3373-3377.	0.8	10
25	Boseâ€“Einstein condensation of quasiparticles in graphene. Nanotechnology, 2010, 21, 134019.	2.6	10
26	On transmittance and localization of the electromagnetic wave in two-dimensional graphene-based photonic crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 2075-2080.	2.1	10
27	Superfluidity of â€˜dirtyâ€™ indirect magnetoexcitons in coupled quantum wells in high magnetic field. Journal of Physics Condensed Matter, 2007, 19, 386219.	1.8	9
28	Anomalous far-infrared monochromatic transmission through a film of type-II superconductor in magnetic field. Physical Review B, 2008, 78, .	3.2	9
29	Harnessing the Polariton Drag Effect to Design an Electrically Controlled Optical Switch. ACS Nano, 2014, 8, 10437-10447.	14.6	9
30	On the phase diagram of a two-dimensional electronâ€“hole system. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 71, 7-13.	2.7	9
31	Quantum entanglement for two qubits in a nonstationary cavity. Physical Review A, 2016, 94, .	2.5	9
32	The Crystallization of Indirect Excitons in Coupled Quantum Wells. Physica Scripta, 1998, 58, 86-89.	2.5	8
33	Instability of dipole magnetoexcitons in quantum wells' and graphene superlattices. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6536-6540.	2.1	8
34	Boseâ€“Einstein condensation and superfluidity of trapped polaritons in graphene and quantum wells embedded in a microcavity. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 5459-5482.	3.4	7
35	Crystal phases of charged interlayer excitons in van der Waals heterostructures. Communications Physics, 2021, 4, .	5.3	7
36	Quasiparticles for a quantum dot array in graphene and the associated magnetoplasmons. Physical Review B, 2009, 79, .	3.2	6

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37	TRIONS IN COUPLED QUANTUM WELLS AND WIGNER CRYSTALLIZATION. International Journal of Modern Physics B, 2014, 28, 1450064.	2.0	6
38	Superfluidity of dipolar excitons in doped double-layered hexagonal lattice in a strong magnetic field. Physical Review B, 2020, 102, .	3.2	6
39	Strain-induced quantum Hall phenomena of excitons in graphene. Scientific Reports, 2022, 12, 2950.	3.3	5
40	Superfluidity of â€˜dirtyâ€™ indirect excitons in coupled quantum wells. Solid State Communications, 2005, 134, 47-50.	1.9	4
41	Introduction to nonlinear phenomena in superfluid liquids and Boseâ€“Einstein condensates: helium, semiconductors and graphene. Contemporary Physics, 2011, 52, 319-340.	1.8	4
42	The electronâ€“hole superfluidity in two coaxial nanotubes. Journal of Physics Condensed Matter, 2014, 26, 075301.	1.8	4
43	Collective properties of excitons in the presence of a two-dimensional electron gas. Solid State Communications, 2010, 150, 832-835.	1.9	3
44	Restricted Three Body Problem in Semiconductor Heterostructure. Few-Body Systems, 2011, 50, 407-411.	1.5	3
45	Spontaneous formation and nonequilibrium dynamics of a soliton-shaped Bose-Einstein condensate in a trap. Physical Review E, 2015, 91, 062901.	2.1	3
46	Electron-hole superfluidity controlled by a periodic potential. Physical Review B, 2019, 100, .	3.2	3
47	High-temperature tunable superfluidity of polaritons in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Xene</mml:mi></mml:math> monolayers in an optical microcavity. Physical Review B, 2019, 99, .	3.2	3
48	Spin Hall effect for polaritons in a transition metal dichalcogenide embedded in a microcavity. Physical Review B, 2019, 99, .	3.2	3
49	Superfluidity of Dipolar Excitons in a Double Layer of Î± â^’ T3 with a Mass Term. Nanomaterials, 2022, 12, 1437.	4.1	3
50	Phase transitions of indirect excitons in coupled quantum wells: The role of disorder. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 34, 268-271.	2.7	2
51	Spatial condensation of trapped polaritons in graphene and semiconductor structures. Superlattices and Microstructures, 2011, 49, 331-336.	3.1	2
52	Laplace transform approach for the dynamics of N qubits coupled to a resonator. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 487-493.	2.1	2
53	Chiral filtration of light by Weyl-semimetal medium. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 399, 127294.	2.1	2
54	Sensitive linear response of an electron-hole superfluid in a periodic potential. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 92, 1-6.	2.7	1

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55	Stability of indirect biexcitons in superlattices. Solid State Communications, 2005, 134, 27-31.	1.9	0
56	The Band Structure of Photonic Band-Gap Crystals with Superconducting Elements. AIP Conference Proceedings, 2006, , .	0.4	0
57	Application of Graphics Processing Units (GPUs) to the Study of Non-linear Dynamics of the Exciton Bose-Einstein Condensate in a Semiconductor Quantum Well. , 2011, , .		0
58	Short note on the excitonic Mott phase. Philosophical Magazine, 2016, 96, 1360-1368.	1.6	0
59	Magnetoplasmons and Quasiparticles for Quantum-dots in Graphene. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2008, 4, 721-725.	0.4	0