Alexander Germanenko

List of Publications by Year
in descending order

65	766	567144 15	552653 26
papers	citations	h-index	g-index

65	65	65	583
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantum corrections to the conductivity in two-dimensional systems: Agreement between theory and experiment. Physical Review B, 2001, 64, .	1.1	56
2	Quantum corrections to conductivity: From weak to strong localization. Physical Review B, 2002, 65, .	1.1	50
3	Weak antilocalization in quantum wells in tilted magnetic fields. Physical Review B, 2004, 70, .	1.1	49
4	Magnetoresistance and dephasing in a two-dimensional electron gas at intermediate conductances. Physical Review B, 2004, 70, .	1.1	48
5	Spin-orbit splitting of valence and conduction bands in HgTe quantum wells near the Dirac point. Physical Review B, 2016, 93, .	1.1	38
6	Antilocalization and spin-orbit coupling in the hole gas in strainedGaAsâˆ•InxGa1âˆ’xAsâˆ•GaAsquantum well heterostructures. Physical Review B, 2005, 71, .	1.1	37
7	Electron-electron interaction with decreasing conductance. Physical Review B, 2003, 67, .	1.1	35
8	Two-dimensional semimetal in a wide HgTe quantum well: Magnetotransport and energy spectrum. Physical Review B, 2013, 88, .	1.1	35
9	Diffusion and ballistic contributions of the interaction correction to the conductivity of a two-dimensional electron gas. Physical Review B, 2006, 74, .	1.1	33
10	Narrowâ€Gap and Gapless Semiconductors under Uniaxial Stress. Energy Spectrum and Galvanomagnetic Phenomena. Physica Status Solidi (B): Basic Research, 1994, 184, 9-67.	0.7	31
11	Valence band energy spectrum of HgTe quantum wells with an inverted band structure. Physical Review B, 2017, 96, .	1.1	30
12	Analysis of negative magnetoresistance: Statistics of closed paths.â€ƒI.â€ƒTheory. Physical Review B, 2000, 61, 13164-13171.	1.1	27
13	Giant suppression of the Drude conductivity due to quantum interference in the disordered two-dimensional systemGaAsâˆ•InxGa1âˆ’xAsâˆ•GaAs. Physical Review B, 2007, 75, .	1.1	25
14	Weak antilocalization in HgTe quantum wells with inverted energy spectra. Physical Review B, 2012, 85, .	1.1	23
15	Hole transport and valence-band dispersion law in a HgTe quantum well with a normal energy spectrum. Physical Review B, 2014, 89, .	1.1	17
16	Tunneling studies of two-dimensional states in semiconductors with inverted band structure: Spin-orbit splitting and resonant broadening. Physical Review B, 1996, 54, 1841-1852.	1.1	15
17	Role of doped layers in the dephasing of two-dimensional electrons in quantum-well structures. Physical Review B, 2001, 64, .	1.1	13
18	Hole-hole interaction in a strainedInxGa1âˆ’xAstwo-dimensional system. Physical Review B, 2005, 72, .	1.1	13

#	Article	IF	Citations
19	Weak localization in macroscopically inhomogeneous two-dimensional systems: a simulation approach. Physical Review B, 2001, 64, .	1.1	12
20	Analysis of negative magnetoresistance: Statistics of closed paths. II. Experiment. Physical Review B, 2000, 61, 13172-13176.	1.1	11
21	Transverse negative magnetoresistance of two-dimensional structures in the presence of a strong in-plane magnetic field: Weak localization as a probe of interface roughness. Physical Review B, 2004, 70, .	1.1	11
22	Interband mixing between two-dimensional states localized in a surface quantum welland heavy-hole states of the valence band in a narrow-gap semiconductor. Physical Review B, 1997, 55, 13062-13065.	1.1	10
23	Renormalization of hole-hole interaction at decreasing Drude conductivity: Gated <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Ga</mml:mi><mml:mi mathvariant="normal">As</mml:mi><mml:mo>â^•</mml:mo><mml:msub><mml:mi mathvariant="normal">In</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">Ga</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow><...	1.1	10
24	Low magnetic field anomaly of the Hall effect in disordered two-dimensional systems: Interplay between weak localization and electron-electron interaction. Physical Review B, 2010, 82, .	1.1	10
25	Magneto-intersubband oscillations in two-dimensional systems with an energy spectrum split due to spin-orbit interaction. Physical Review B, 2020, 101, .	1.1	10
26	Disorder and temperature renormalization of interaction contribution to the conductivity in two-dimensional<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>In</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub> systems. Physical Review B, 2009, 79, .	1.1	9
27	Tunneling conductivity oscillations in a magnetic field in metal-insulator-narrow-gap-HgCdTe structures: The energy spectrum and spin-orbit splitting of 2D states. Journal of Experimental and Theoretical Physics, 1997, 85, 292-299.	0.2	8
28	Interference-induced metalliclike behavior of a two-dimensional hole gas in an asymmetricGaAsâ^•InxGa1â^’xAsâ^•GaAsquantum well. Physical Review B, 2007, 75, .	1.1	8
29	Low-field negative magnetoresistance in double-layer structures. Physical Review B, 2000, 62, 17089-17093.	1.1	7
30	Weak antilocalization of holes in HgTe quantum wells with a normal energy spectrum. Physical Review B, 2015, 91, .	1.1	7
31	Two-dimensional states at the HgTe/Hg0.05Cd0.95Te interface as determined from the tunneling investigations. Physical Review B, 1995, 52, 17254-17259.	1.1	6
32	Nonuniversality of the interference quantum correction to conductivity beyond the diffusion regime. Physical Review B, 2006, 73, .	1.1	6
33	Interaction correction to conductivity of Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>Ga<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>As/GaAs double quantum well heterostructures near the balance. Physical Review B, 2011, 84, .	1.1	6
34	Anisotropic conductivity and weak localization in HgTe quantum wells with a normal energy spectrum. Physical Review B, 2013, 88, .	1.1	6
35	Landau levels of 2D states localized in the surface quantum well of gapless HgCdTe from tunnelling spectroscopy. Semiconductor Science and Technology, 1995, 10, 1578-1584.	1.0	5
36	Dephasing and interwell transitions in double quantum well heterostructures. Physical Review B, 2010, 82, .	1.1	5

#	Article	IF	Citations
37	Inter-well transitions and negative magnetoresistance in double-quantum-well heterostructures. Nanotechnology, 2000, 11, 406-410.	1.3	4
38	Energy relaxation rate of the two-dimensional hole gas in a GaAs/InGaAs/GaAs quantum well. Physical Review B, 2011, 83, .	1.1	4
39	Interaction correction to the conductivity of two-dimensional electron gas in InxGa1â^'xAs/InP quantum well structure with strong spin-orbit coupling. Physical Review B, 2012, 85, .	1.1	4
40	ANTILOCALIZATION IN GATED 2D QUANTUM WELL STRUCTURES WITH COMPOSITION GRADIENT. International Journal of Nanoscience, 2003, 02, 543-549.	0.4	3
41	INTERFERENCE INDUCED MAGNETORESISTANCE BEYOND THE DIFFUSION REGIME IN 2D SYSTEMS WITH SPIN-ORBIT COUPLING. International Journal of Modern Physics B, 2007, 21, 1669-1673.	1.0	3
42	DEPHASING IN PRESENCE OF A MAGNETIC FIELD. International Journal of Nanoscience, 2007, 06, 261-264.	0.4	3
43	Two-dimensional semimetal in wide HgTe quantum wells: Charge-carrier energy spectrum and magnetotransport. Semiconductors, 2013, 47, 1562-1566.	0.2	3
44	Conductance of a lateral pâ€"n junction in two-dimensional HgTe structures with an inverted spectrum: The role of edge states. JETP Letters, 2015, 101, 469-473.	0.4	3
45	Anisotropy of the in-plane g -factor of electrons in HgTe quantum wells. Physical Review B, 2020, 101, .	1.1	3
46	Magnetic-field-dependent zero-bias diffusive anomaly in Pb oxideâ€"nâ^'InAsstructures: Coexistence of two- and three-dimensional states. Physical Review B, 1999, 59, 13139-13146.	1.1	2
47	Nonohmic conductivity under transition from weak to strong localization in GaAs/InGaAs structures with a two-dimensional electron gas. Semiconductors, 2003, 37, 705-709.	0.2	2
48	Weak localization in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Al</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub> Physical Review B, 2008, 78, .	1.1	2
49	Energy spectrum and transport in narrow HgTe quantum wells. Semiconductors, 2015, 49, 39-43.	0.2	2
50	Nonohmic Conductance and Mechanisms of Energy Relaxation in 2D Electron Gas in GaAsâ^•InGaAsâ^•GaAs Heterostructures. Semiconductors, 2005, 39, 221.	0.2	1
51	WEAK LOCALIZATION IN PATTERN 2D STRUCTURES WITH A SINGLE QUANTUM WELL. International Journal of Modern Physics B, 2009, 23, 2955-2959.	1.0	1
52	Spin effects and quantum corrections to the conductivity of two-dimensional systems. Low Temperature Physics, 2009, 35, 24-31.	0.2	1
53	Renormalization of the contribution of the electronâ€"electron interaction to the conductivity of two-dimensional electron systems. Bulletin of the Russian Academy of Sciences: Physics, 2010, 74, 72-74.	0.1	1
54	Interference quantum correction to conductivity of Al_xGa_{1â^'x}As/GaAs double quantum well heterostructures near the balance. Journal of Physics: Conference Series, 2012, 376, 012024.	0.3	1

#	Article	IF	Citations
55	Probability Density Operator and Darwin Term in ID Spinless Semi-Relativistic System. Semiconductors, 2019, 53, 2147-2150.	0.2	1
56	The effect of a surface potential on spin-dependent tunnelling in metal - insulator narrow-gap semiconductor structures in a magnetic field. Semiconductor Science and Technology, 1997, 12, 867-874.	1.0	0
57	Many-body effects and electron tunneling in metal-insulator-p-type semiconductor structures. Semiconductors, 1998, 32, 957-959.	0.2	0
58	Simulation approach to weak localization in inhomogeneous two-dimensional systems and diffusive constrictions. Nanotechnology, 2001, 12, 614-618.	1.3	0
59	Effect of Roughness of Two-Dimensional Heterostructures on Weak Localization. Physics of the Solid State, 2005, 47, 133.	0.2	0
60	Publisher's Note: Magnetoresistance and dephasing in a two-dimensional electron gas at intermediate conductances [Phys. Rev. B70, 245423 (2004)]. Physical Review B, 2005, 71, .	1.1	0
61	The metallic-like temperature dependence of the conductivity in two-dimensions. AIP Conference Proceedings, 2007, , .	0.3	0
62	Low-field anomaly of the hall effect in disordered two-dimensional systems. Semiconductors, 2010, 44, 1430-1434.	0.2	0
63	Zeeman Splitting of Electron Spectrum in HgTe Quantum Wells Near the Dirac Point. Semiconductors, 2018, 52, 519-522.	0.2	0
64	Zero energy states in graphene in Aharonovâ€“Bohm magnetic dots via Wirtinger calculus. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 134, 114851.	1.3	0
65	Supersymmetry and Stable Dirac Sea in Carbon Nanotubes. Semiconductors, 2020, 54, 1661-1663.	0.2	0