Vladimir M Fomin

List of Publications by Year
in descending order

48	1,254	516710 16	361022 35
papers	citations	h-index	g-index

51	51	51	1045
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Perspective on superconductivity in curved 3D nanoarchitectures. Applied Physics Letters, 2022, 120, .	3.3	14
2	Topological defects in open superconducting nanotubes after gradual and abrupt switching of the transport current and magnetic field. Physical Review B, 2022, 105, .	3.2	3
3	Quantum interference in finite-size mesoscopic rings. Physical Review B, 2022, 105, .	3.2	3
4	Topological transitions in ac/dcï»¿-driven superconductor nanotubes. Scientific Reports, 2022, 12, .	3.3	9
5	Switching Propulsion Mechanisms of Tubular Catalytic Micromotors. Small, 2021, 17, e2006449.	10.0	21
6	Phonons and Thermal Transport in Si/SiO2 Multishell Nanotubes: Atomistic Study. Applied Sciences (Switzerland), 2021, 11, 3419.	2.5	5
7	Critical current modulation induced by an electric field in superconducting tungsten-carbon nanowires. Scientific Reports, 2021, 11, 17698.	3.3	19
8	Spin-Dependent Phenomena in Semiconductor Micro-and Nanoparticlesâ€"From Fundamentals to Applications. Applied Sciences (Switzerland), 2020, 10, 4992.	2.5	2
9	Topological transitions in superconductor nanomembranes under a strong transport current. Communications Physics, 2020, 3, .	5.3	11
10	Simulation of dynamics of the order parameter in superconducting nanostructured materials: Effect of the magnetic field renormalization. Low Temperature Physics, 2020, 46, 325-330.	0.6	8
11	Voltage Induced by Superconducting Vortices in Open Nanostructured Microtubes. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800251.	2.4	7
12	Three-Dimensional Superconducting Nanohelices Grown by He⁺-Focused-Ion-Beam Direct Writing. Nano Letters, 2019, 19, 8597-8604.	9.1	52
13	Topology and Geometry Controlled Properties of Nanoarchitectures. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800595.	2.4	2
14	Interplay between the quantum interference and current localization phenomena in superconductor non-ideal mesoscopic rings. Superconductor Science and Technology, 2019, 32, 105008.	3.5	2
15	Resonant Terahertz Light Absorption by Virtue of Tunable Hybrid Interface Phononâ€"Plasmon Modes in Semiconductor Nanoshells. Applied Sciences (Switzerland), 2019, 9, 1442.	2.5	4
16	Excitonic Aharonovâ€"Bohm Oscillations in Coreâ€"Shell Nanowires. Advanced Materials, 2019, 31, 1805645.	21.0	14
17	Topology-Driven Effects in Advanced Micro- and Nanoarchitectures. Nanoscience and Technology, 2018, , 195-220.	1.5	3
18	Superconducting properties of nanostructured microhelices. Journal of Physics Condensed Matter, 2017, 29, 395301.	1.8	10

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19	In-Plane Thermal Conductivity of Radial and Planar Si/SiO_x Hybrid Nanomembrane Superlattices. ACS Nano, 2017, 11, 8215-8222.	14.6	18
20	Modeling of Unidirectional-Overloaded Transition in Catalytic Tubular Microjets. Journal of Physical Chemistry C, 2017, 121, 14854-14863.	3.1	9
21	Spinâ€“orbit coupling of light in asymmetric microcavities. Nature Communications, 2016, 7, 10983.	12.8	69
22	Branching of the vortex nucleation period in superconductor Nb microtubes due to an inhomogeneous transport current. Superconductor Science and Technology, 2016, 29, 045014.	3.5	9
23	Phonon Spectrum Engineering in Rolled-up Micro- and Nano-Architectures. Applied Sciences (Switzerland), 2015, 5, 728-746.	2.5	7
24	Dynamics of the Abrikosov Vortices on Cylindrical Microtubes. Russian Physics Journal, 2015, 58, 623-628.	0.4	6
25	Phonon-engineered thermal transport in Si wires with constant and periodically modulated cross-sections: A crossover between nano- and microscale regimes. Applied Physics Letters, 2015, 107, .	3.3	15
26	Suppression of phonon heat conduction in cross-section-modulated nanowires. Physical Review B, 2012, 85, .	3.2	72
27	Tunable Generation of Correlated Vortices in Open Superconductor Tubes. Nano Letters, 2012, 12, 1282-1287.	9.1	41
28	Electron localization in inhomogeneous MÃ¶bius rings. Physical Review B, 2012, 86, .	3.2	18
29	Magnetic Microhelix Coil Structures. Physical Review Letters, 2011, 107, 097204.	7.8	82
30	Reduction of lattice thermal conductivity in one-dimensional quantum-dot superlattices due to phonon filtering. Physical Review B, 2011, 84, .	3.2	64
31	<I>A Special Issue on</I> Modern Advancements in Experimental and Theoretical Physics of Quantum Rings. Journal of Nanoelectronics and Optoelectronics, 2011, 6, 1-3.	0.5	14
32	Nonadiabatic theory of excitons in wurtzite AlGaN/GaN quantumâ€well heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 46-49.	0.8	1
33	Vortex dynamics in high-T c superconducting films with arrays of antidots. Proceedings of SPIE, 2009, , .	0.8	10
34	Oscillatory Persistent Currents in Self-Assembled Quantum Rings. Physical Review Letters, 2007, 99, 146808.	7.8	192
35	Theory of electron energy spectrum and Aharonov-Bohm effect in self-assembled<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><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><mml:mathvariant="normal">As</mml:mi></mml:mrow></mml:math>quantum rings in GaAs. Physical Review B, 2007, 76, .	3.2	90
36	Modeling of the Magnetization Behavior of Realistic Self-Organized InAs/GaAs Quantum Craters as Observed with Cross-Sectional STM. AIP Conference Proceedings, 2005, , .	0.4	5

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37	Atomic-scale structure of self-assembled In(Ga)As quantum rings in GaAs. Applied Physics Letters, 2005, 87, 131902.	3.3	126
38	Moore's law: new playground for quantum physics. Physica Status Solidi (B): Basic Research, 2003, 237, 426-432.	1.5	1
39	Superconducting mesoscopic square loop. Physical Review B, 1998, 58, 11703-11715.	3.2	51
40	Bipolaron confinement in two-dimensional layers. Physical Review B, 1994, 49, 12748-12753.	3.2	11
41	Relation between persistent current and band structure of finite-width mesoscopic rings. Physical Review B, 1994, 50, 4642-4647.	3.2	47
42	Optical Properties of Multiâ€Layer Structures. IV. Nonâ€Linear Absorption of light in Multiâ€Layer Structures. Physica Status Solidi (B): Basic Research, 1993, 176, 355-364.	1.5	2
43	Interaction Hamiltonian between an electron and polar surface vibrations in a symmetrical three-layer structure. Physical Review B, 1993, 47, 16597-16600.	3.2	12
44	Polaron Pairing in Multiâ€Layer Structures I. Bipolaron States in Multiâ€Layer Structures with Quantum Wells. Physica Status Solidi (B): Basic Research, 1992, 169, 429-441.	1.5	5
45	Polaron Pairing in Multi-Layer Structures: II. Interlayer Bipolaron States in Structures with Quantum Wells. Physica Status Solidi (B): Basic Research, 1992, 171, 437-445.	1.5	5
46	Excitons in Periodic Structures with Homopolar Semiconductors and Anisotropic Dielectrics. Physica Status Solidi (B): Basic Research, 1985, 128, 251-257.	1.5	7
47	Excitons in Multiâ€Layer Systems. Physica Status Solidi (B): Basic Research, 1985, 129, 203-209.	1.5	18
48	Phonons and the Electron-Phonon Interaction in Multi-Layer Systems. Physica Status Solidi (B): Basic Research, 1985, 132, 69-82.	1.5	55