

Vyacheslav N Gorshkov

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69
papers

1,047
citations

14
h-index

31
g-index

76
ext. papers

1,158
ext. citations

3
avg, IF

4.14
L-index

#	Paper	IF	Citations
69	Electron spin relaxation induced by a cantilever when the spin frequency matches the cantilever frequency. <i>Journal of Applied Physics</i> , 2021 , 130, 144402	2.5	0
68	Heterogeneous and Homogeneous Nucleation in the Synthesis of Quasi-One-Dimensional Periodic Core-Shell Nanostructures. <i>Crystal Growth and Design</i> , 2021 , 21, 1604-1616	3.5	3
67	Roughening transition as a driving factor in the formation of self-ordered one-dimensional nanostructures. <i>CrystEngComm</i> , 2021 , 23, 1836-1848	3.3	3
66	Diversity of anisotropy effects in the breakup of metallic FCC nanowires into ordered nanodroplet chains. <i>CrystEngComm</i> , 2020 , 22, 2601-2611	3.3	6
65	Axionic dark matter halos in the gravitational field of baryonic matter. <i>Modern Physics Letters A</i> , 2020 , 35, 2050248	1.3	
64	Two-component axionic dark matter halos. <i>Modern Physics Letters A</i> , 2020 , 35, 2050227	1.3	1
63	Restructuring and breakup of nanowires with the diamond cubic crystal structure into nanoparticles. <i>Materials Today Communications</i> , 2020 , 22, 100727	2.5	5
62	Bose-Einstein condensate of ultra-light axions as a candidate for the dark matter galaxy halos. <i>Modern Physics Letters A</i> , 2019 , 34, 1950361	1.3	3
61	Phononic dispersion in anisotropic pseudo-fractal hyper-lattices. <i>Materials and Design</i> , 2019 , 164, 107560	3.1	4
60	Dynamics of Anisotropic Break-Up in Nanowires of FCC Lattice Structure. <i>Advanced Theory and Simulations</i> , 2019 , 2, 1900118	3.5	6
59	Magnetic resonance force microscopy with a paramagnetic probe. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2017 , 381, 1445-1448	2.3	2
58	Kinetics modeling of nanoparticle growth on and evaporation off nanotubes. <i>Journal of Applied Physics</i> , 2017 , 121, 014301	2.5	7
57	Kinetic Monte Carlo model of breakup of nanowires into chains of nanoparticles. <i>Journal of Applied Physics</i> , 2017 , 122, 204301	2.5	18
56	Lattice percolation approach to numerical modelling of tissue aging. <i>International Journal of Parallel, Emergent and Distributed Systems</i> , 2016 , 31, 1-19	1	5
55	Rate-equation modelling and ensemble approach to extraction of parameters for viral infection-induced cell apoptosis and necrosis. <i>Journal of Chemical Physics</i> , 2016 , 145, 094103	3.9	1
54	Lattice percolation approach to 3D modeling of tissue aging. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016 , 462, 207-216	3.3	6
53	Non-adiabatic molecular dynamics by accelerated semiclassical Monte Carlo. <i>Journal of Chemical Physics</i> , 2015 , 143, 014115	3.9	12

52	Formation of nanoclusters and nanopillars in nonequilibrium surface growth for catalysis applications: growth by diffusional transport of matter in solution synthesis. <i>Heat and Mass Transfer</i> , 2014 , 50, 383-392	2.2	11
51	Nonequilibrium kinetic modeling of sintering of a layer of dispersed nanocrystals. <i>CrystEngComm</i> , 2014 , 16, 10395-10409	3.3	8
50	Modeling of Growth Morphology of CoreShell Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 24959-24966	3.8	9
49	Semiclassical Monte Carlo: a first principles approach to non-adiabatic molecular dynamics. <i>Journal of Chemical Physics</i> , 2014 , 141, 184101	3.9	16
48	Mechanisms of interparticle bridging in sintering of dispersed nanoparticles. <i>Journal of Coupled Systems and Multiscale Dynamics</i> , 2014 , 2, 91-99		8
47	Nonequilibrium kinetic study of sintering of dispersed nanoparticles. <i>CrystEngComm</i> , 2013 , 15, 7177	3.3	6
46	Semiclassical Monte-Carlo approach for modelling non-adiabatic dynamics in extended molecules. <i>Nature Communications</i> , 2013 , 4, 2144	17.4	42
45	Radiation damping for speeding-up NMR applications. <i>Concepts in Magnetic Resonance Part A: Bridging Education and Research</i> , 2012 , 40A, 179-185	0.6	1
44	Morphology of nanoclusters and nanopillars formed in nonequilibrium surface growth for catalysis applications. <i>Langmuir</i> , 2011 , 27, 8554-61	4	20
43	Scintillation reduction for laser beams propagating through turbulent atmosphere. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2011 , 44, 055402	1.3	16
42	Scintillation reduction for combined Gaussian-vortex beam propagating through turbulent atmosphere 2011 ,		3
41	Models of synthesis of uniform colloids and nanocrystals. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010 , 43, 1-12	3	27
40	Shape selection in diffusive growth of colloids and nanoparticles. <i>Langmuir</i> , 2009 , 25, 7940-53	4	39
39	Reduction of laser intensity scintillations in turbulent atmospheres using time averaging of a partially coherent beam. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2009 , 42, 225403	1.3	7
38	Optimization and new applications of a magnetic trap for ultra-cold neutrons. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008 , 592, 385-392	1.2	5
37	Suppression of intensity fluctuations in free space high-speed optical communication based on spectral encoding of a partially coherent beam. <i>Optics Communications</i> , 2007 , 280, 264-270	2	39
36	Process of compensation of the space charge of a negative ion beam in a gas. <i>Plasma Physics Reports</i> , 2007 , 33, 1032-1037	1.2	1
35	Ground states of Heisenberg spin chains via quantum annealing. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007 , 369, 151-156	2.3	

- 34 Beam wandering in the atmosphere: the effect of partial coherence. *Physical Review E*, **2007**, 76, 056606.2.4 50
- 33 Spin diffusion and relaxation in solid state spin quantum computer. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2006**, 352, 107-114 2.3
- 32 Spin diffusion and relaxation in a nonuniform magnetic field. *Physical Review B*, **2005**, 71, 3.3 6
- 31 Modeling and simulations of a single-spin measurement using MRFM. *IEEE Nanotechnology Magazine*, **2005**, 4, 14-20 2.6 4
- 30 Regular and random magnetic resonance force microscopy signal with a cantilever oscillating parallel to a sample surface. *Journal of Applied Physics*, **2004**, 96, 5081-5084 2.5 1
- 29 Reduction of magnetic noise in magnetic resonance force microscopy. *Physical Review B*, **2004**, 69, 3.3 3
- 28 Space charge lens for focusing negative ion beam: Theory and experiment. *Review of Scientific Instruments*, **2004**, 75, 1774-1776 1.7 1
- 27 The low-field permanent magnet electrostatic plasma lens. *Review of Scientific Instruments*, **2004**, 75, 1662-1664 1.7 1
- 26 Random spin signal in magnetic resonance force microscopy. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2003**, 318, 584-591 2.3 5
- 25 Space-charge lens for focusing a negative-ion beam. *Plasma Physics Reports*, **2003**, 29, 480-484 1.2
- 24 Numerical simulations of a high-current plasma lens. *Plasma Physics Reports*, **2003**, 29, 874-882 1.2 3
- 23 Formation of monodispersed cadmium sulfide particles by aggregation of nanosize precursors. *Advances in Colloid and Interface Science*, **2003**, 100-102, 169-183 14.3 54
- 22 Model of Controlled Synthesis of Uniform Colloid Particles: Cadmium Sulfide. *Langmuir*, **2003**, 19, 10679-10683.9
- 21 Permanent magnet plasma lens. *Review of Scientific Instruments*, **2002**, 73, 1001-1003 1.7 11
- 20 Topology of optical vortices spontaneous birth **2002**, 4607, 13 2
- 19 Synthesis of optical vortices by technique of a phase wedge **2002**, 4
- 18 Diffraction and self-restoration of a severely screened vortex beam **2001**, 11
- 17 Wavefront motion in the vicinity of a phase dislocation: optical vortex. *Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)*, **2000**, 88, 260-265 0.7 30

16	Topological charge and angular momentum of light beams carrying optical vortices. <i>Physical Review A</i> , 1997 , 56, 4064-4075	2.6	372
15	Microdroplet emission on liquid metal surface at the development of Rayleigh instabilities □ applications in cosmos. <i>Applied Surface Science</i> , 1996 , 94-95, 171-176	6.7	1
14	The dynamical effects in liquid-metal ion sources. <i>Applied Surface Science</i> , 1995 , 87-88, 112-116	6.7	3
13	Liquid metal microdroplet source for deposition purposes. <i>Applied Surface Science</i> , 1993 , 65-66, 1-12	6.7	21
12	Microdroplet emission and instabilities in liquid-metal ion sources. <i>Surface Science</i> , 1992 , 266, 185-190	1.8	14
11	Periodic structures on the surface of liquid metal electrodes in contact with plasma. <i>Journal of Engineering Physics and Thermophysics</i> , 1992 , 62, 489-491	0.6	
10	Determination of atom concentrations by resonant radiation capture. <i>Journal of Applied Spectroscopy</i> , 1986 , 45, 671-675	0.7	
9	Z-pinch dynamics under the combined breakdown in bismuth-antimony alloys. <i>Solid State Communications</i> , 1985 , 53, 259-262	1.6	
8	On the coherent self-oscillation mechanism under transverse breakdown in n-InSb (T = 77 K). <i>Solid State Communications</i> , 1985 , 56, 399-402	1.6	1
7	Radiative lifetimes of excited states and oscillator strengths of spectral lines of some lanthanide atoms and ions (Review). <i>Journal of Applied Spectroscopy</i> , 1984 , 41, 1091-1104	0.7	6
6	Combined breakdown in bismuthAntimony semiconductor alloys. <i>Solid State Communications</i> , 1983 , 46, 193-196	1.6	3
5	Lifetimes of excited levels of Nd I and Nd II. Oscillator strengths of the spectral lines of Nd I. <i>Astrofizika</i> , 1982 , 17, 437-441		9
4	Plasma self-oscillations in semiconductors within submillimetre frequency range. <i>Solid State Communications</i> , 1980 , 34, 555-557	1.6	3
3	Instabilities of electron-hole plasma under impact ionization and microwave emission. <i>Solid State Communications</i> , 1979 , 30, 153-156	1.6	6
2	Grantmakher-Kaner effect in strong magnetic fields. <i>Solid State Communications</i> , 1978 , 27, 595-598	1.6	
1	On the nature of oscillations ofZ-pinch in n-InSb under impact ionization. <i>Solid State Communications</i> , 1976 , 19, 563-567	1.6	1