Victor V Moshchalkov

List of Publications by Year
in descending order

100	2,058	236925	289244
papers	citations	25 h-index	40 g-index

103	103	103	2304
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnetization of multiple-quanta vortex lattices. Physical Review B, 1996, 54, 7385-7393.	3.2	196
2	Temperature dependence of lower critical field<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>H</mml:mi><mml:mrow><mml:mi>c</mml:mi><mml:mn>1</mml:mn></mml:mrow	3.2	91
	nodeless superconductivity in FeSe. Physical Review B, 2013, 88, .		
3	Revisiting the Surface Sensitivity of Nanoplasmonic Biosensors. ACS Photonics, 2015, 2, 425-431.	6.6	83
4	Geometrical guidance and trapping transition of human sperm cells. Physical Review E, 2014, 89, 032720.	2.1	78
5	Effects of disorder and isotopic substitution in the specific heat and Raman scattering in LuB12. Journal of Experimental and Theoretical Physics, 2011, 113, 468-482.	0.9	59
6	Scanning Hall probe microscopy of unconventional vortex patterns in the two-gap MgB<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>superconductor. Physical Review B, 2012, 85, .	3.2	57
7	Vortex ratchet effects in films with a periodic array of antidots. Physical Review B, 2006, 73, .	3.2	54
8	Enhanced pinning in superconducting thin films with graded pinning landscapes. Applied Physics Letters, 2013, 102, .	3.3	53
9	Luminescence of oxyfluoride glasses co-doped with Ag nanoclusters and Yb³⁺ions. RSC Advances, 2012, 2, 1496-1501.	3.6	52
10	Biosensing Using Diffractively Coupled Plasmonic Crystals: the Figure of Merit Revisited. Advanced Optical Materials, 2015, 3, 176-181.	7.3	52
11	Thin-film superconductor-ferromagnet hybrids: Competition between nucleation of superconductivity at domain walls and domainsâ€™ centers. Physical Review B, 2006, 74, .	3.2	42
12	Controllable morphology of flux avalanches in microstructured superconductors. Physical Review B, 2014, 89, .	3.2	41
13	On the use of the method of moments in plasmonic applications. Radio Science, 2011, 46, .	1.6	39
14	Weak ferromagnetism in La-doped BiFeO3 multiferroic thin films. Journal of Applied Physics, 2012, 111, .	2.5	38
15	Giant vortices, rings of vortices, and reentrant behavior in type-1.5 superconductors. Physical Review B, 2011, 83, .	3.2	37
16	Role of grain size in superconducting boron-doped nanocrystalline diamond thin films grown by CVD. Physical Review B, 2011, 84, .	3.2	36
17	Magnetoresistance oscillations in superconducting strips: A Ginzburg-Landau study. Physical Review B, 2012, 86, .	3.2	36
18	Ultraviolet-driven white light generation from oxyfluoride glass co-doped with Tm3+-Tb3+-Eu3+. Applied Physics Letters, 2013, 102, .	3.3	32

#	Article	IF	Citations
19	Superconductivity of underdoped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">La</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:mi mathvariant="normal">Sr</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi mathvariant="normal">Cu</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> thin-film	3.2	30
20	Extended excitons and compact heliumlike biexcitons in type-II quantum dots. Physical Review B, 2009, 80, .	3.2	30
21	Scanning Hall probe microscopy of vortex patterns in a superconducting microsquare. Physical Review B, 2008, 77, .	3.2	29
22	Optimization of superconducting critical parameters by tuning the size and magnetization of arrays of magnetic dots. Physical Review B, 2007, 76, .	3.2	28
23	Visualizing the ac magnetic susceptibility of superconducting films via magneto-optical imaging. Physical Review B, 2011, 84, .	3.2	27
24	High-frequency vortex ratchet effect in a superconducting film with a nanoengineered array of asymmetric pinning sites. Physical Review B, 2010, 81, .	3.2	26
25	Two-Photon Luminescence of Gold Nanorods Mediated by Higher Order Plasmon Modes. ACS Photonics, 2015, 2, 410-416.	6.6	26
26	Extraordinary magnetic field induced suppression of luminescence in Er3+-doped nano-glass-ceramics. Journal of Applied Physics, 2009, 106, 053502.	2.5	24
27	Zeeman splitting and confinement effects in Er3+-doped nano-glass-ceramics in magnetic fields up to 50T. Applied Physics Letters, 2008, 92, 171101.	3.3	23
28	Planar superconductor/ferromagnet hybrids: Anisotropy of resistivity induced by magnetic templates. Applied Physics Letters, 2009, 94, .	3.3	23
29	Solâ€“gel preparation and white up-conversion luminescence in rare-earth doped PbF2 nanocrystals dissolved in silica glass. Journal of Sol-Gel Science and Technology, 2010, 53, 509-514.	2.4	23
30	Room-temperature nonsaturating magnetoresistance of intrinsic bulk silicon in high pulsed magnetic fields. Applied Physics Letters, 2011, 98, .	3.3	23
31	Onset, evolution, and magnetic braking of vortex lattice instabilities in nanostructured superconducting films. Physical Review B, 2015, 92, .	3.2	23
32	Influence of magnet size on magnetically engineered field-induced superconductivity. Physical Review B, 2007, 76, .	3.2	22
33	Localized superconductivity and Little-Parks effect in superconductor/ferromagnet hybrids. Physical Review B, 2007, 75, .	3.2	21
34	Local mapping of dissipative vortex motion. Physical Review B, 2012, 86, .	3.2	21
35	Lead silicate glass SiO2â€“PbF2 doped with luminescent Ag nanoclusters of a fixed site. RSC Advances, 2014, 4, 20699.	3.6	21
36	Disrupting the wall accumulation of human sperm cells by artificial corrugation. Biomicrofluidics, 2015, 9, 024122.	2.4	21

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37	Increase of charge-carrier redistribution efficiency in a laterally organized superlattice of coupled quantum dots. Physical Review B, 2006, 74, .	3.2	20
38	Excitonic Mott transition in type-II quantum dots. Physical Review B, 2008, 77, .	3.2	20
39	Low-field vortex patterns in the multiband BaFe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^’</mml:mo><mml:mi mathvariant="normal">x</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math>Ni<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow />	3.2	20
40	Flux penetration in a superconducting film partially capped with a conducting layer. Physical Review B, 2017, 95, .	3.2	20
41	Exciton confinement in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">In</mml:mi><mml:mi mathvariant="normal">As</mml:mi><mml:mo>â^•</mml:mo><mml:mi mathvariant="normal">In</mml:mi><mml:mi mathvariant="normal">P</mml:mi></mml:mrow></mml:math> quantum wires and quantum wells in the presence of a magnetic field. Physical Review B, 2007, 76,	3.2	19
42	Domain-wall and reverse-domain superconducting states of a Pb thin-film bridge on a ferromagnetic BaFe12O19single crystal. Physical Review B, 2011, 84, .	3.2	19
43	Intrinsic granularity in nanocrystalline boron-doped diamond films measured by scanning tunneling microscopy. Physical Review B, 2009, 80, .	3.2	17
44	Reverse-domain superconductivity in superconductor-ferromagnet hybrids: Effect of a vortex-free channel on the symmetry of I-V characteristics. Applied Physics Letters, 2010, 97, .	3.3	16
45	First vortex entry into a perpendicularly magnetized superconducting thin film. Physical Review B, 2013, 88, .	3.2	15
46	Electrical transport in Mn-doped GaAs pn-diodes. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 791-804.	1.8	14
47	Guided nucleation of superconductivity on a graded magnetic substrate. Applied Physics Letters, 2010, 96, .	3.3	14
48	Observation of single flux quantum vortices in the intermediate state of a type-I superconducting film. Physical Review B, 2013, 88, .	3.2	14
49	Peak effect in optimally doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-type single-crystal Ba<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>K<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>Fe<mml:math xmlns:mml=	3.2	14
50	Magnetic field-dependent photoluminescence linewidths as a probe of disorder length scales in quantum wells. Applied Physics Letters, 2007, 91, 251108.	3.3	13
51	Photoluminescence from localized states in disordered indium nitride. Applied Physics Letters, 2008, 93, 021113.	3.3	13
52	Ultralow blocking temperature and breakdown of the giant spin model in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mtext>Er</mml:mtext></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow	3.2	13
53	Mapping degenerate vortex states in a kagome lattice of elongated antidots via scanning Hall probe microscopy. Physical Review B, 2017, 96, .	3.2	13
54	Intense infrared upconversion luminescence of NaGdF4:Yb/Tm with controlled intensity. Journal of Applied Physics, 2017, 121, 163103.	2.5	12

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55	Negative magnetoresistance in boron-doped nanocrystalline diamond films. Journal of Applied Physics, 2009, 106, 033711.	2.5	11
56	High magnetic field matching effects in NbN films induced by template grown dense ferromagnetic nanowires arrays. Applied Physics Letters, 2009, 95, 252503.	3.3	11
57	Magnetization of Mn1â€“x Fe x Si in high magnetic fields up to 50 T: Possible evidence of a field-induced Griffiths phase. JETP Letters, 2016, 104, 116-123.	1.4	11
58	An investigation of structural and electrical properties of boron doped and undoped nanocrystalline diamond films. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 3021-3027.	1.8	10
59	Asymmetry reversal of thermomagnetic avalanches in Pb films with a ratchet pinning potential. Physical Review B, 2007, 76, .	3.2	10
60	Crossover between different regimes of inhomogeneous superconductivity in planar superconductor-ferromagnet hybrids. Physical Review B, 2011, 84, .	3.2	10
61	Magnetocaloric effect and nature of magnetic transition in nanoscale Pr0.5Ca0.5MnO3. Journal of Applied Physics, 2012, 112, .	2.5	10
62	Determination of the magnetic penetration depth in a superconducting Pb film. Journal of Applied Physics, 2014, 115, .	2.5	10
63	Closer look at the low-frequency dynamics of vortex matter using scanning susceptibility microscopy. Physical Review B, 2014, 90, .	3.2	10
64	Rectification effects in superconducting triangles. Applied Physics Letters, 2006, 89, 112512.	3.3	9
65	Magnetic field-driven superconductorâ€“insulator transition in boron-doped nanocrystalline chemical vapor deposition diamond. Journal of Applied Physics, 2010, 108, .	2.5	9
66	Second Harmonic Generation Indicates a Better Si/Ge Interface Quality for Higher Temperature and With $hbox{N}_{2}$ Rather Than With $hbox{H}_{2}$ as the Carrier Gas. IEEE Electron Device Letters, 2011, 32, 12-14.	3.9	9
67	Critical current density and flux pinning in Zr0.96V0.04B2 superconductor with AlB2 structure. Journal of Applied Physics, 2013, 114, .	2.5	9
68	Giant fractional Shapiro steps in anisotropic Josephson junction arrays. Communications Physics, 2020, 3, .	5.3	9
69	Magnetically controlled superconducting weak links. Applied Physics Letters, 2009, 95, 032501.	3.3	8
70	Dependence of the flux-creep activation energy on current density and magnetic field for a Ca10(Pt3As8)[(Fe1â^'xPtx)2As2]5 single crystal. Applied Physics Letters, 2014, 104, .	3.3	8
71	Superconducting microrings as magnetic pinning centers. Applied Physics Letters, 2007, 91, .	3.3	7
72	Magnetic properties of multiferroics Bi1 â€“ x Sm x FeO3 synthesized under high pressure. Physics of the Solid State, 2017, 59, 1536-1542.	0.6	7

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73	Separation of the contributions to the magnetization of Tm1 â^' xYb x B12 solid solutions in steady and pulsed magnetic fields. Journal of Experimental and Theoretical Physics, 2013, 116, 838-842.	0.9	6
74	Phase diagram of a mesoscopic superconducting Pb square: Ballistic Hall magnetometry. Physical Review B, 2007, 76, .	3.2	5
75	MBE growth of MgGeAs2:Mn on GaAs substrate. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 152-158.	1.8	5
76	Different regimes of nucleation of superconductivity in mesoscopic superconductor/ferromagnet hybrids. Physical Review B, 2008, 77, .	3.2	5
77	Tunable anisotropic nonlinearity in superconductors with asymmetric antidot array. Applied Physics Letters, 2008, 93, 082501.	3.3	5
78	Mesoscopic cross-film cryotrons: Vortex trapping and dc-Josephson-like oscillations of the critical current. Physical Review B, 2011, 83, .	3.2	5
79	The Renewed KU Leuven Pulsed Field Facility. Journal of Low Temperature Physics, 2013, 170, 553-561.	1.4	5
80	Superconducting properties of perforated NbN films using ordered arrays of ferromagnetic nanowires. Physical Review B, 2011, 84, .	3.2	4
81	Dynamic response of exchange bias in graphene nanoribbons. Applied Physics Letters, 2012, 101, 142402.	3.3	4
82	Morphology of Flux Avalanches in Patterned Superconducting Films. Journal of Superconductivity and Novel Magnetism, 2013, 26, 2285-2288.	1.8	4
83	Probing the low-frequency vortex dynamics in a nanostructured superconducting strip. Physical Review B, 2016, 94, .	3.2	4
84	Probing higher order optical modes in all-dielectric nanodisk, -square, and -triangle by aperture type scanning near-field optical microscopy. Nanophotonics, 2022, 11, 543-557.	6.0	3
85	Avalanche-like vortex penetration driven by pulsed microwave fields in an epitaxial LaSrCuO thin film. Journal of Applied Physics, 2013, 114, 233902.	2.5	2
86	Localized superconductivity in superconductor-ferromagnet hybrid structures. Bulletin of the Russian Academy of Sciences: Physics, 2009, 73, 3-7.	0.6	1
87	On the use of a hierarchical multi-level building block basis function scheme in periodic plasmonic structures. Applied Physics A: Materials Science and Processing, 2014, 115, 415-419.	2.3	1
88	Exciton confinement in strain-engineered metamorphic InAs/ <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">I</mml:mi><mml:msub><mml:mi mathvariant="normal">n</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi mathvariant="normal">G</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mtext>â€“</mml:mtext><mml:mi>x</mml:mi></mml:mro	3.2	1
89	Vortex ice pattern evolution in a kagome nanostructured superconductor. Physical Review B, 2020, 102, .	3.2	1
90	Disturbed Array Formation of Electrochemically Grown Self-Organised Nanostructures. Materials Research Society Symposia Proceedings, 1998, 517, 331.	0.1	0

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91	Magnetotransport of holes through an AlAs/GaAs/AlAs resonant tunnelling quantum well with a ferromagnetic Ga_{1â€“x}Mn_x As emitter. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 3463-3477.	1.8	0
92	Temperature and magnetic field dependence of the voltagein GaAs films with superconducting Ga grains. European Physical Journal B, 2008, 66, 25-28.	1.5	0
93	Disorder Tuned Superconductor Insulator Transition inÂLa2âˆ’x (Sr/Ce) x CuO4 & NbN Superconducting Thin Films. Journal of Superconductivity and Novel Magnetism, 2010, 23, 807-810.	1.8	0
94	Integral equation techniques: From microwaves, over mm waves, to IR and optical frequencies. , 2011, , .		0
95	Volumetric integral equation techniques for plasmonic applications. , 2012, , .		0
96	Study of far field characteristics of nano dipoles above a realistic substrate. , 2014, , .		0
97	An N-port network model for nanoantennas. , 2014, , .		0
98	Weak ferromagnetism and spin density distributions in thin films of Gd x Bi1 âˆ’ x FeO3 solid solutions. Bulletin of the Russian Academy of Sciences: Physics, 2014, 78, 690-693.	0.6	0
99	Variation of local fields of pinned vortices with temperature. Applied Physics Letters, 2020, 116, 102601.	3.3	0
100	ANSWERS AND QUESTIONS ON PATH INTEGRALS FOR SUPERCONDUCTIVITY IN A WEDGE. , 2008, , .		0