

Mikhail I Vasilevskiy

List of Publications by Year in descending order

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122
papers

2,603
citations

201674

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214800

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125
all docs

125
docs citations

125
times ranked

2627
citing authors

#	ARTICLE	IF	CITATIONS
1	A PRIMER ON SURFACE PLASMON-POLARITONS IN GRAPHENE. International Journal of Modern Physics B, 2013, 27, 1341001.	2.0	325
2	Use and misuse of the Kubelka-Munk function to obtain the band gap energy from diffuse reflectance measurements. Solid State Communications, 2022, 341, 114573.	1.9	177
3	Optical bistability of graphene in the terahertz range. Physical Review B, 2014, 90, .	3.2	133
4	Mechanism for graphene-based optoelectronic switches by tuning surface plasmon-polaritons in monolayer graphene. Europhysics Letters, 2010, 92, 68001.	2.0	109
5	Competition between ferroelectric and semiconductor properties in Pb(Zr _{0.65} Ti _{0.35})O ₃ thin films deposited by sol-gel. Journal of Applied Physics, 2003, 93, 4776-4783.	2.5	100
6	Raman spectroscopy of optical phonons confined in semiconductor quantum dots and nanocrystals. Journal of Raman Spectroscopy, 2007, 38, 618-633.	2.5	95
7	Electron-phonon interaction effects in semiconductor quantum dots: A nonperturbative approach. Physical Review B, 2004, 70, .	3.2	84
8	Tunable graphene-based polarizer. Journal of Applied Physics, 2012, 112, 084320.	2.5	81
9	Unusual reflection of electromagnetic radiation from a stack of graphene layers at oblique incidence. Journal of Optics (United Kingdom), 2013, 15, 114004.	2.2	79
10	Tuning of the surface plasmon resonance in TiO ₂ /Au thin films grown by magnetron sputtering: The effect of thermal annealing. Journal of Applied Physics, 2011, 109, .	2.5	74
11	Nonlinear TE-polarized surface polaritons on graphene. Physical Review B, 2014, 89, .	3.2	68
12	Graphene-based polaritonic crystal. Physical Review B, 2012, 85, .	3.2	61
13	Dipolar vibrational modes in spherical semiconductor quantum dots. Physical Review B, 2002, 66, .	3.2	47
14	Impact of disorder on optical phonons confined in CdS nano-crystallites embedded in a SiO ₂ matrix. Journal of Physics Condensed Matter, 2001, 13, 3491-3509.	1.8	45
15	Impact of D ₂ O/H ₂ O Solvent Exchange on the Emission of HgTe and CdTe Quantum Dots: Polaron and Energy Transfer Effects. ACS Nano, 2016, 10, 4301-4311.	14.6	43
16	FIR Absorption in CdSe Quantum Dot Ensembles. Physica Status Solidi (B): Basic Research, 2001, 224, 599-604.	1.5	37
17	Resonant Raman scattering in CdS _x Se _{1-x} nanocrystals: effects of phonon confinement, composition, and elastic strain. Journal of Raman Spectroscopy, 2011, 42, 1660-1669.	2.5	37
18	Exciton polaritons in two-dimensional dichalcogenide layers placed in a planar microcavity: Tunable interaction between two Bose-Einstein condensates. Physical Review B, 2015, 92, .	3.2	36

#	ARTICLE	IF	CITATIONS
19	Exact solution for square-wave grating covered with graphene: surface plasmon-polaritons in the terahertz range. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 125303.	1.8	33
20	Effective dielectric response of semiconductor composites. <i>Physical Review B</i> , 1996, 54, 5844-5851.	3.2	32
21	Discrete solitons in graphene metamaterials. <i>Physical Review B</i> , 2015, 91, .	3.2	32
22	Broadband Optical Absorption Caused by the Plasmonic Response of Coalesced Au Nanoparticles Embedded in a TiO ₂ Matrix. <i>Journal of Physical Chemistry C</i> , 2016, 120, 16931-16945.	3.1	31
23	Nonperturbative approach to the calculation of multiphonon Raman scattering in semiconductor quantum dots: Polaron effect. <i>Physical Review B</i> , 2006, 74, .	3.2	30
24	Cascade upconversion of photoluminescence in quantum dot ensembles. <i>Physical Review B</i> , 2008, 78, .	3.2	30
25	Topological photonic Tamm states and the Su-Schrieffer-Heeger model. <i>Physical Review A</i> , 2020, 101, .	2.5	29
26	Gas Sensors Based on Localized Surface Plasmon Resonances: Synthesis of Oxide Films with Embedded Metal Nanoparticles, Theory and Simulation, and Sensitivity Enhancement Strategies. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 5388.	2.5	29
27	Anti-Stokes cooling in semiconductor nanocrystal quantum dots: A feasibility study. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2009, 206, 2497-2509.	1.8	28
28	Resonant Raman scattering in ZnO:Mn and ZnO:Mn:Al thin films grown by RF sputtering. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 334205.	1.8	26
29	Graphene Plasmons in Triangular Wedges and Grooves. <i>ACS Photonics</i> , 2016, 3, 2176-2183.	6.6	26
30	A source of terahertz coherent phonons. <i>Journal of Physics Condensed Matter</i> , 1998, 10, 5905-5921.	1.8	22
31	Further insight into the temperature quenching of photoluminescence from InAs/GaAs self-assembled quantum dots. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	22
32	Anomalous first-order Raman scattering in III-V quantum dots: Optical deformation potential interaction. <i>Physical Review B</i> , 2008, 78, .	3.2	21
33	Light scattering by a medium with a spatially modulated optical conductivity: the case of graphene. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 245303.	1.8	20
34	Electrical spin injection in forward biased Schottky diodes based on InGaAs/GaAs quantum well heterostructures. <i>Applied Physics Letters</i> , 2006, 89, 181118.	3.3	19
35	Enhanced optical dichroism of graphene nanoribbons. <i>Physical Review B</i> , 2012, 86, .	3.2	18
36	Calculation of the Huang-Rhys parameter in spherical quantum dots: the optical deformation potential effect. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 346215.	1.8	16

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37	Dielectric function of hydrogenated amorphous silicon near the optical absorption edge. Journal of Applied Physics, 2009, 106, 073110.	2.5	16
38	Raman study of insulating and conductive ZnO:(Al, Mn) thin films. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2345-2354.	1.8	16
39	Compositional, Optical and Electrical Characteristics of SiO _x Thin Films Deposited by Reactive Pulsed DC Magnetron Sputtering. Coatings, 2019, 9, 468.	2.6	16
40	Surface Plasmon Resonance in a Metallic Nanoparticle Embedded in a Semiconductor Matrix: Exciton-Plasmon Coupling. ACS Photonics, 2019, 6, 204-210.	6.6	16
41	Energy Transfer via Exciton Transport in Quantum Dot Based Self-Assembled Fractal Structures. Journal of Physical Chemistry C, 2014, 118, 4982-4990.	3.1	15
42	Optical Properties of PZT 65/35 Thin Films Deposited by Sol-Gel. Ferroelectrics, 2002, 268, 187-192.	0.6	14
43	Study of the piezoresistivity of doped nanocrystalline silicon thin films. Journal of Applied Physics, 2011, 109, .	2.5	14
44	Resonant Raman scattering in spherical quantum dots: Γ_1^- versus Γ_1^+ semiconductor nanocrystals. Physica Status Solidi (B): Basic Research, 2010, 247, 1488-1491.	1.5	13
45	Raman study of doped ZnO thin films grown by rf sputtering. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2290-2293.	0.8	13
46	Ag fractals formed on top of a porous TiO ₂ thin film. Physica Status Solidi - Rapid Research Letters, 2016, 10, 530-534.	2.4	13
47	Hybrid plasmon-magnon polaritons in graphene-antiferromagnet heterostructures. 2D Materials, 2019, 6, 045003.	4.4	13
48	NANOPTICS: In-depth analysis of NANomaterials for OPTICal localized surface plasmon resonance Sensing. SoftwareX, 2020, 12, 100522.	2.6	13
49	1.3-1.5 μ m electroluminescence from Schottky diodes made on Au-InAs/GaAs quantum-size heterostructures. Semiconductor Science and Technology, 2004, 19, S469-S471.	2.0	12
50	Resonance energy transfer in self-organized organic/inorganic dendrite structures. Nanoscale, 2013, 5, 9317.	5.6	12
51	Renormalization of nanoparticle polarizability in the vicinity of a graphene-covered interface. Physical Review B, 2014, 90, .	3.2	12
52	Fabrication of GeSn-multiple quantum wells by overgrowth of Sn on Ge by using molecular beam epitaxy. Applied Physics Letters, 2015, 107, .	3.3	12
53	Impact of Graphene on the Polarizability of a Neighbour Nanoparticle: A Dyadic Green's Function Study. Applied Sciences (Switzerland), 2017, 7, 1158.	2.5	12
54	Polaron relaxation in a quantum dot due to anharmonic coupling within a mean-field approach. Physical Review B, 2009, 79, .	3.2	11

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55	Resonant Excitation of Confined Excitons in Nanocrystal Quantum Dots Using Surface Plasmon-Polaritons. <i>Journal of Physical Chemistry C</i> , 2012, 116, 13738-13744.	3.1	11
56	Optical conductivity of ABA stacked graphene trilayer: mid-IR resonance due to band nesting. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 395301.	1.8	11
57	Terahertz response of patterned epitaxial graphene. <i>New Journal of Physics</i> , 2015, 17, 053045.	2.9	11
58	Structural and vibrational properties of Sn _x Ge _{1-x} : Modeling and experiments. <i>Journal of Applied Physics</i> , 2018, 124, .	2.5	11
59	Probing the Exciton Density of States in Semiconductor Nanocrystals Using Integrated Photoluminescence Spectroscopy. <i>Monatshefte für Chemie</i> , 2002, 133, 909-918.	1.8	10
60	Suppression of the photoluminescence quenching effect in self-assembled InAs/GaAs quantum dots. <i>Applied Physics Letters</i> , 2005, 87, 053109.	3.3	10
61	Scattering of surface plasmon polaritons in a graphene multilayer photonic crystal with inhomogeneous doping. <i>Physical Review B</i> , 2016, 93, .	3.2	10
62	Condensed exciton polaritons in a two-dimensional trap: Elementary excitations and shaping by a Gaussian pump beam. <i>Physical Review B</i> , 2013, 87, .	3.2	9
63	Effect of clustering on the surface plasmon band in thin films of metallic nanoparticles. <i>Journal of Nanophotonics</i> , 2014, 9, 093796.	1.0	9
64	Raman and IR-ATR spectroscopy studies of heteroepitaxial structures with a GaN/C top layer. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 365103.	2.8	9
65	Far-infrared Tamm polaritons in a microcavity with incorporated graphene sheet. <i>Optical Materials Express</i> , 2019, 9, 244.	3.0	9
66	Multi-stacks of epitaxial GeSn self-assembled dots in Si: Structural analysis. <i>Journal of Applied Physics</i> , 2015, 117, 125706.	2.5	8
67	Exciton-polaritons of a 2D semiconductor layer in a cylindrical microcavity. <i>Journal of Applied Physics</i> , 2020, 127, 133101.	2.5	8
68	Quantum simulation of the ground-state Stark effect in small molecules: a case study using IBM Q. <i>Soft Computing</i> , 2021, 25, 6807-6830.	3.6	8
69	Polaron effect on Raman scattering in semiconductor quantum dots. <i>Semiconductor Science and Technology</i> , 2004, 19, S312-S315.	2.0	7
70	Modelling of the composition segregation effect during epitaxial growth of InGaAs quantum well heterostructures. <i>Semiconductor Science and Technology</i> , 2010, 25, 085008.	2.0	7
71	Probing spatial correlations in a system of polarizable nanoparticles via measuring its optical extinction spectrum. <i>Europhysics Letters</i> , 2013, 102, 67001.	2.0	7
72	Excitation of localized graphene plasmons by a metallic slit. <i>Physical Review B</i> , 2020, 101, .	3.2	7

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73	Exciton-Photon Interactions in Semiconductor Nanocrystals: Radiative Transitions, Non-Radiative Processes and Environment Effects. Applied Sciences (Switzerland), 2021, 11, 497.	2.5	7
74	Influence of matrix defects on the photoluminescence of InAs self-assembled quantum dots. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1348-1352.	1.8	6
75	Excited states of exciton-polariton condensates in 2D and 1D harmonic traps. Physical Review B, 2014, 89, .	3.2	6
76	Effects of alloy disorder and confinement on phonon modes and Raman scattering in SixGe1-xnanocrystals: A microscopic modeling. Journal of Applied Physics, 2014, 115, 143505.	2.5	6
77	Variational calculation of the lowest exciton states in phosphorene and transition metal dichalcogenides. Journal of Physics Condensed Matter, 2022, 34, 045702.	1.8	6
78	Determination of the far infrared optical constants of δ -doped bulk Cd _x Hg _{1-x} Te (CMT) by dispersive fourier transform spectroscopy. Journal of Infrared, Millimeter and Terahertz Waves, 1995, 16, 763-773.	0.6	5
79	Diffusion instability of homogeneous distribution of mercury in cadmium mercury telluride. Semiconductor Science and Technology, 1995, 10, 157-162.	2.0	5
80	Dipole-active vibrations confined in InP quantum dots. Physica B: Condensed Matter, 2002, 316-317, 452-454.	2.7	5
81	Magnetic field assisted transmission of THz waves through a graphene layer combined with a periodically perforated metallic film. Physical Review B, 2018, 97, .	3.2	5
82	Double-barrier coherent sound generator: a new device. Superlattices and Microstructures, 1997, 22, 427-430.	3.1	4
83	Optical Phonons in CdS Nanocrystals: Effects of Size, Shape and Packing Density. Materials Research Society Symposia Proceedings, 1999, 571, 217.	0.1	4
84	Ab-initio modeling of a-Si and a-Si:H. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1432-1435.	0.8	4
85	Simulation of Nonradiative Energy Transfer in Photosynthetic Systems Using a Quantum Computer. Complexity, 2020, 2020, 1-12.	1.6	4
86	The effects of short-range order and natural microinhomogeneities on the FIR optical properties of Cd _x Hg _{1-x} Te. Journal of Electronic Materials, 1999, 28, 654-661.	2.2	3
87	Is polaron effect important for resonant Raman scattering in self-assembled quantum dots?. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 862-866.	0.8	3
88	Exciton-phonon interaction in semiconductor nanocrystals. , 2008, , 217-255.		3
89	Phonon modes and Raman scattering in Si _x Ge _{1-x} nanocrystals: microscopic modelling. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 701-704.	0.8	3
90	Modeling of a Plasmonic Biosensor Based on a Graphene Nanoribbon Superlattice. Physica Status Solidi (B): Basic Research, 2022, 259, .	1.5	3

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91	Complex model for plasma-enhanced heteroepitaxial deposition of A ₂ B ₆ semiconductor compounds using MOC. Semiconductor Science and Technology, 1992, 7, 245-254.	2.0	2
92	Phonons in a medium with correlated substitutional disorder: a one-dimensional study. Journal of Physics Condensed Matter, 1992, 4, 9299-9308.	1.8	2
93	Influence of cluster formation on localization of optical phonons in two-dimensional pseudobinary substitutional solid solutions. Physics of the Solid State, 2003, 45, 1154-1161.	0.6	2
94	Cascade upconversion of photoluminescence in ensembles of II-VI semiconductor nanocrystals. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1517-1519.	0.8	2
95	Light emission and spin-polarised hole injection in InAs/GaAs quantum dot heterostructures with Schottky contact. Europhysics Letters, 2012, 98, 27012.	2.0	2
96	A versatile fluorescence lifetime imaging system for scanning large areas with high time and spatial resolution. Proceedings of SPIE, 2014, , .	0.8	2
97	Short-range order in a 1D substitutional solid solution. Journal of Physics Condensed Matter, 1991, 3, 7133-7138.	1.8	1
98	Confined LO phonons in superlattices with interfacial broadening. Journal of Physics Condensed Matter, 1992, 4, 4509-4518.	1.8	1
99	Mixed optical phonon modes in semiconductor nanocrystals synthesized in porous Al ₂ O ₃ matrix. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2638-2641.	0.8	1
100	Localization of phonon polaritons in disordered polar media. Physical Review E, 2005, 72, 066618.	2.1	1
101	Electron confinement in nanocrystals embedded in random media: Andersen localization effects. AIP Conference Proceedings, 2007, , .	0.4	1
102	Electroluminescence And Spin-Polarized Hole Injection In InAs/GaAs Quantum Dot Heterostructures. , 2010, , .		1
103	Near-field resonant energy transfer between spherical quantum dots. , 2014, , .		1
104	Tamm Polaritons and Cavity Modes in the FIR Range. , 2018, , .		1
105	Localized polariton states in a photonic crystal intercalated by a transition metal dichalcogenide monolayer. Journal of the Optical Society of America B: Optical Physics, 2021, 38, C225.	2.1	1
106	The effect of vibrational degrees of freedom on the phase transition in a 2D Ising model. Physica A: Statistical Mechanics and Its Applications, 1999, 274, 367-373.	2.6	0
107	Size Dependence Of The Optical Gap In Silicon Nanocrystals Embedded Into a-Si:H Matrix. AIP Conference Proceedings, 2005, , .	0.4	0
108	Polaron Effect In Semiconductor Quantum Dots: Impact On The Optical Absorption, Up-converted Photoluminescence And Raman Scattering. AIP Conference Proceedings, 2005, , .	0.4	0

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109	Resonant Raman Scattering In Spherical InP QDs: The Role Of The Optical Deformation Potential Interaction. AIP Conference Proceedings, 2005, , .	0.4	0
110	Resonant Raman scattering on optical phonons confined in spherical semiconductor nanocrystals: ODP interaction and polaron effects. AIP Conference Proceedings, 2007, , .	0.4	0
111	Polaron Relaxation In A Quantum Dot Due To Anharmonic Coupling Within A Mean-Field Approach. , 2010, , .		0
112	Is it possible to assess spatial correlations in a system of polarizable particles by measuring its optical response?. Proceedings of SPIE, 2011, , .	0.8	0
113	Faraday effect in ZnO:Mn thin films. AIP Conference Proceedings, 2011, , .	0.4	0
114	Optical response of fractal aggregates of polarizable particles. , 2014, , .		0
115	Graphene-based nanostructures: Plasmonics in the THz range. , 2015, , .		0
116	Back Cover: Ag fractals formed on top of a porous TiO ₂ thin film (Phys. Status Solidi RRL) Tj ETQq0 0 0 rgBT /Overlock 10 T 2.4 0		0
117	Graphene and polarisable nanoparticles: Looking good together?. , 2016, , .		0
118	Surface-Plasmon-Polariton-Assisted Diffraction of THz Waves on a Graphene-Covered Slit. , 2020, , .		0
119	Electrical spin injection in light emitting Schottky diodes based on InGaAs /GaAs QW heterostructures. AIP Conference Proceedings, 2007, , .	0.4	0
120	10.1007/s11451-008-1011-6. , 2010, 50, 52.		0
121	Optical Properties of Bulk and Nanocrystalline Cadmium Telluride. , 2013, , 1-22.		0
122	Electromagnetic properties of a monolayer of polarisable particles deposited on graphene. , 2017, , .		0