Vasili Perebeinos

List of Publications by Year
in descending order

78 papers	9,141 citations	71102 41 h-index	69250 77 g-index
79 all docs	79 docs citations	79 times ranked	11138 citing authors

#	Article	IF	Citations
1	Simulation of Scanning Near-Field Optical Microscopy Spectra of 1D Plasmonic Graphene Junctions. Optics Express, 2022, 30, 9000-9007.	3.4	1
2	Nonlinear spectroscopy of excitonic states in transition metal dichalcogenides. Physical Review B, 2022, 105, .	3.2	4
3	Entanglement generation in a quantum network with finite quantum memory lifetime. AVS Quantum Science, 2022, 4, .	4.9	3
4	Microscopic theory of exciton and trion polaritons in doped monolayers of transition metal dichalcogenides. Npj Computational Materials, 2022, 8, .	8.7	7
5	Phonon-Limited Mobility in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>h</mml:mi></mml:mrow></mml:math> -BN Encapsulated <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>A</mml:mi><mml:mi>B</mml:mi></mml:mrow></mml:math> -Stacked Bilayer Graphene. Physical Review Letters, 2022, 128, .	7.8	5
6	Nonlocal thermal transport modeling using the thermal distributor. Physical Review B, 2022, 105, .	3.2	0
7	Two-Dimensional Cold Electron Transport for Steep-Slope Transistors. ACS Nano, 2021, 15, 5762-5772.	14.6	20
8	Tunable graphene plasmons in nanoribbon arrays: the role of interactions. Optical Materials Express, 2021, 11, 1390.	3.0	2
9	Small Polarons in Two-Dimensional Pnictogens: A First-Principles Study. Journal of Physical Chemistry Letters, 2021, 12, 4674-4680.	4.6	7
10	Negative Differential Resistance in Carbon-Based Nanostructures. Physical Review Applied, 2021, 15, .	3.8	12
11	Polaronic signatures in pristine phosphorene. Physical Review Materials, 2021, 5, .	2.4	1
12	Dielectric Engineering Boosts the Efficiency of Carbon Nanotube Photodiodes. ACS Nano, 2021, 15, 10472-10479.	14.6	5
13	Band structure dependent electronic localization in macroscopic films of single-chirality single-wall carbon nanotubes. Carbon, 2021, 183, 774-779.	10.3	5
14	Extremely Efficient Photocurrent Generation in Carbon Nanotube Photodiodes Enabled by a Strong Axial Electric Field. Nano Letters, 2020, 20, 433-440.	9.1	10
15	Scattering of Quasistatic Plasmons From One-Dimensional Junctions of Graphene: Transfer Matrices, Fresnel Relations, and Nonlocality. Physical Review Applied, 2020, 14, .	3.8	4
16	Trion induced photoluminescence of a doped MoS2 monolayer. Journal of Chemical Physics, 2020, 153, 044132.	3.0	25
17	Three-particle states and brightening of intervalley excitons in a doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></m monolayer. Physical Review B, 2020, 101, .	3.2	15
18	Prominent room temperature valley polarization in WS2/graphene heterostructures grown by chemical vapor deposition. Applied Physics Letters, 2020, 116, .	3.3	25

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19	Multilayer Graphene Terahertz Plasmonic Structures for Enhanced Frequency Tuning Range. ACS Photonics, 2019, 6, 3180-3185.	6.6	24
20	Photo-induced terahertz near-field dynamics of graphene/InAs heterostructures. Optics Express, 2019, 27, 13611.	3.4	25
21	Temperature in a Peierls-Boltzmann treatment of nonlocal phonon heat transport. Physical Review B, 2018, 98, .	3.2	14
22	Terahertz Nanoimaging of Graphene. ACS Photonics, 2018, 5, 2645-2651.	6.6	78
23	Plasmonâ€“Plasmon Interactions and Radiative Damping of Graphene Plasmons. ACS Photonics, 2018, 5, 3459-3465.	6.6	17
24	Phonon-limited carrier mobility in monolayer black phosphorus. Physical Review B, 2017, 95, .	3.2	30
25	Thermal Light Emission from Monolayer MoS₂. Advanced Materials, 2017, 29, 1701304.	21.0	45
26	Band Structure and Contact Resistance of Carbon Nanotubes Deformed by a Metal Contact. Physical Review Letters, 2017, 119, 207701.	7.8	19
27	Excitonic Stark effect in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2016, 94, .	3.2	48
28	Two dimensions and one photon. Nature Nanotechnology, 2015, 10, 485-486.	31.5	21
29	Carbon Nanotube Deformation and Collapse under Metal Contacts. Nano Letters, 2014, 14, 4376-4380.	9.1	23
30	Quantum Efficiency and Capture Cross Section of First and Second Excitonic Transitions of Single-Walled Carbon Nanotubes Measured through Photoconductivity. Nano Letters, 2013, 13, 3531-3538.	9.1	36
31	Schottky-to-Ohmic Crossover in Carbon Nanotube Transistor Contacts. Physical Review Letters, 2013, 111, 236802.	7.8	13
32	Phonon-Mediated Interlayer Conductance in Twisted Graphene Bilayers. Physical Review Letters, 2012, 109, 236604.	7.8	57
33	Cooling of photoexcited carriers in graphene by internal and substrate phonons. Physical Review B, 2012, 86, .	3.2	100
34	Quantum Behavior of Graphene Transistors near the Scaling Limit. Nano Letters, 2012, 12, 1417-1423.	9.1	77
35	Structure and Electronic Transport in Graphene Wrinkles. Nano Letters, 2012, 12, 3431-3436.	9.1	540
36	The origins and limits of metalâ€“graphene junction resistance. Nature Nanotechnology, 2011, 6, 179-184.	31.5	730

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37	Low Bias Electron Scattering in Structure-Identified Single Wall Carbon Nanotubes: Role of Substrate Polar Phonons. Physical Review Letters, 2011, 107, 146601.	7.8	16
38	Efficient narrow-band light emission from a single carbon nanotube pâ€“n diode. Nature Nanotechnology, 2010, 5, 27-31.	31.5	181
39	Thermal infrared emission from biased graphene. Nature Nanotechnology, 2010, 5, 497-501.	31.5	245
40	Silicon Nitride Gate Dielectrics and Band Gap Engineering in Graphene Layers. Nano Letters, 2010, 10, 3572-3576.	9.1	136
41	Controllable p-n Junction Formation in Monolayer Graphene Using Electrostatic Substrate Engineering. Nano Letters, 2010, 10, 4634-4639.	9.1	148
42	Inelastic scattering and current saturation in graphene. Physical Review B, 2010, 81, .	3.2	264
43	How does the substrate affect the Raman and excited state spectra of a carbon nanotube?. Applied Physics A: Materials Science and Processing, 2009, 96, 271-282.	2.3	49
44	Phonon populations and electrical power dissipation in carbon nanotube transistors. Nature Nanotechnology, 2009, 4, 320-324.	31.5	111
45	Carbon Nanotube Photo- and Electroluminescence in Longitudinal Electric Fields. ACS Nano, 2009, 3, 3744-3748.	14.6	44
46	Valence force model for phonons in graphene and carbon nanotubes. Physical Review B, 2009, 79, .	3.2	56
47	Carrier scattering, mobilities, and electrostatic potential in monolayer, bilayer, and trilayer graphene. Physical Review B, 2009, 80, .	3.2	397
48	Chemical Doping and Electronâ˘'Hole Conduction Asymmetry in Graphene Devices. Nano Letters, 2009, 9, 388-392.	9.1	458
49	Photocurrent Imaging and Efficient Photon Detection in a Graphene Transistor. Nano Letters, 2009, 9, 1039-1044.	9.1	543
50	Energy Dissipation in Graphene Field-Effect Transistors. Nano Letters, 2009, 9, 1883-1888.	9.1	339
51	An Essential Mechanism of Heat Dissipation in Carbon Nanotube Electronics. Nano Letters, 2009, 9, 1850-1855.	9.1	110
52	The Effects of Substrate Phonon Mode Scattering on Transport in Carbon Nanotubes. Nano Letters, 2009, 9, 312-316.	9.1	88
53	Gate-Variable Light Absorption and Emission in a Semiconducting Carbon Nanotube. Nano Letters, 2009, 9, 3477-3481.	9.1	55
54	Carbon-nanotube photonics and optoelectronics. Nature Photonics, 2008, 2, 341-350.	31.4	1,033

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55	Intersubband Decay of 1-D Exciton Resonances in Carbon Nanotubes. Nano Letters, 2008, 8, 87-91.	9.1	41
56	Computational Study of Exciton Generation in Suspended Carbon Nanotube Transistors. Nano Letters, 2008, 8, 1596-1601.	9.1	8
57	Exciton Ionization, Franzâ^'Keldysh, and Stark Effects in Carbon Nanotubes. Nano Letters, 2007, 7, 609-613.	9.1	121
58	Magnetic Brightening of Carbon Nanotube Photoluminescence through Symmetry Breaking. Nano Letters, 2007, 7, 1851-1855.	9.1	120
59	Doping and phonon renormalization in carbon nanotubes. Nature Nanotechnology, 2007, 2, 725-730.	31.5	178
60	Mobility in Semiconducting Carbon Nanotubes at Finite Carrier Density. Nano Letters, 2006, 6, 205-208.	9.1	49
61	Carbon nanotube optoelectronics. Physica Status Solidi (B): Basic Research, 2006, 243, 3197-3203.	1.5	48
62	Magneto-optical spectroscopy of excitons in carbon nanotubes. Physica Status Solidi (B): Basic Research, 2006, 243, 3192-3196.	1.5	2
63	Impact excitation by hot carriers in carbon nanotubes. Physical Review B, 2006, 74, .	3.2	73
64	Electronic structure of Sâ€"C6H5 self-assembled monolayers on Cu(111) and Au(111) substrates. Chemical Physics, 2005, 319, 159-166.	1.9	28
65	Bright Infrared Emission from Electrically Induced Excitons in Carbon Nanotubes. Science, 2005, 310, 1171-1174.	12.6	320
66	Photoconductivity Spectra of Single-Carbon Nanotubes:â€‰ Implications on the Nature of Their Excited States. Nano Letters, 2005, 5, 749-752.	9.1	143
67	Electron-Phonon Interaction and Transport in Semiconducting Carbon Nanotubes. Physical Review Letters, 2005, 94, 086802.	7.8	299
68	Radiative Lifetime of Excitons in Carbon Nanotubes. Nano Letters, 2005, 5, 2495-2499.	9.1	249
69	Scaling of Excitons in Carbon Nanotubes. Physical Review Letters, 2004, 92, 257402.	7.8	597
70	Hot Carrier Electroluminescence from a Single Carbon Nanotube. Nano Letters, 2004, 4, 1063-1066.	9.1	162
71	â€˜Madelung modelâ€™ prediction for dependence of lattice parameter on nanocrystal size. Solid State Communications, 2002, 123, 295-297.	1.9	115
72	Exact, numerical, and mean field behavior of a dimerizing lattice in one dimension. Solid State Communications, 2001, 118, 215-219.	1.9	2

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73	Optical Properties ofc-Axis Oriented SuperconductingMgB2Films. Physical Review Letters, 2001, 87, 277001.	7.8	75
74	First-principles calculations of the self-trapped exciton in crystalline NaCl. Physical Review B, 2000, 62, 12589-12592.	3.2	10
75	Franck-Condonâ€"Broadened Angle-Resolved Photoemission Spectra Predicted inLaMnO3. Physical Review Letters, 2000, 85, 5178-5181.	7.8	48
76	Self-Trapped Exciton and Franck-Condon Spectra Predicted inLaMnO3. Physical Review Letters, 1999, 83, 4828-4831.	7.8	91
77	Anti-Jahn-Teller polaron inLaMnO3. Physical Review B, 1999, 60, 10747-10753.	3.2	32
78	Toward a Theory of Orbiton Dispersion in LaMnO3. Physica Status Solidi (B): Basic Research, 1999, 215, 607-615.	1.5	9