

Sergei V Morozov

List of Publications by Year in descending order

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69
papers

123,787
citations

43973

48
h-index

98622

67
g-index

70
all docs

70
docs citations

70
times ranked

70149
citing authors

#	ARTICLE	IF	CITATIONS
1	Electric Field Effect in Atomically Thin Carbon Films. <i>Science</i> , 2004, 306, 666-669.	6.0	56,177
2	Two-dimensional gas of massless Dirac fermions in graphene. <i>Nature</i> , 2005, 438, 197-200.	13.7	18,948
3	Two-dimensional atomic crystals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 10451-10453.	3.3	10,229
4	Detection of individual gas molecules adsorbed on graphene. <i>Nature Materials</i> , 2007, 6, 652-655.	13.3	7,114
5	Control of Graphene's Properties by Reversible Hydrogenation: Evidence for Graphane. <i>Science</i> , 2009, 323, 610-613.	6.0	3,748
6	Giant Intrinsic Carrier Mobilities in Graphene and Its Bilayer. <i>Physical Review Letters</i> , 2008, 100, 016602.	2.9	2,919
7	Room-Temperature Quantum Hall Effect in Graphene. <i>Science</i> , 2007, 315, 1379-1379.	6.0	2,662
8	Field-Effect Tunneling Transistor Based on Vertical Graphene Heterostructures. <i>Science</i> , 2012, 335, 947-950.	6.0	2,268
9	Strong Light-Matter Interactions in Heterostructures of Atomically Thin Films. <i>Science</i> , 2013, 340, 1311-1314.	6.0	2,179
10	Unconventional quantum Hall effect and Berry's phase of 2π in bilayer graphene. <i>Nature Physics</i> , 2006, 2, 177-180.	6.5	1,785
11	Biased Bilayer Graphene: Semiconductor with a Gap Tunable by the Electric Field Effect. <i>Physical Review Letters</i> , 2007, 99, 216802.	2.9	1,728
12	Vertical field-effect transistor based on graphene-WS ₂ heterostructures for flexible and transparent electronics. <i>Nature Nanotechnology</i> , 2013, 8, 100-103.	15.6	1,543
13	Graphene-Based Liquid Crystal Device. <i>Nano Letters</i> , 2008, 8, 1704-1708.	4.5	1,441
14	Micrometer-Scale Ballistic Transport in Encapsulated Graphene at Room Temperature. <i>Nano Letters</i> , 2011, 11, 2396-2399.	4.5	1,440
15	Molecular Doping of Graphene. <i>Nano Letters</i> , 2008, 8, 173-177.	4.5	1,025
16	High electron mobility, quantum Hall effect and anomalous optical response in atomically thin InSe. <i>Nature Nanotechnology</i> , 2017, 12, 223-227.	15.6	996
17	Strong Suppression of Weak Localization in Graphene. <i>Physical Review Letters</i> , 2006, 97, 016801.	2.9	809
18	Electron Tunneling through Ultrathin Boron Nitride Crystalline Barriers. <i>Nano Letters</i> , 2012, 12, 1707-1710.	4.5	724

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19	Dirac cones reshaped by interaction effects in suspended graphene. Nature Physics, 2011, 7, 701-704.	6.5	703
20	Tunable metal-insulator transition in double-layer graphene heterostructures. Nature Physics, 2011, 7, 958-961.	6.5	486
21	Twist-controlled resonant tunnelling in graphene/boron nitride/graphene heterostructures. Nature Nanotechnology, 2014, 9, 808-813.	15.6	435
22	Strong Coulomb drag and broken symmetry in double-layer graphene. Nature Physics, 2012, 8, 896-901.	6.5	365
23	Effect of a High- $\hbar\omega_c$ Environment on Charge Carrier Mobility in Graphene. Physical Review Letters, 2009, 102, 206603.	2.9	347
24	Electronic properties of graphene. Physica Status Solidi (B): Basic Research, 2007, 244, 4106-4111.	0.7	291
25	Interaction-Driven Spectrum Reconstruction in Bilayer Graphene. Science, 2011, 333, 860-863.	6.0	262
26	Giant Nonlocality Near the Dirac Point in Graphene. Science, 2011, 332, 328-330.	6.0	255
27	Interaction phenomena in graphene seen through quantum capacitance. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3282-3286.	3.3	239
28	Magnon-assisted tunnelling in van der Waals heterostructures based on CrBr ₃ . Nature Electronics, 2018, 1, 344-349.	13.1	239
29	Electronic properties of a biased graphene bilayer. Journal of Physics Condensed Matter, 2010, 22, 175503.	0.7	209
30	Ultrasensitive gas detection of large-area boron-doped graphene. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14527-14532.	3.3	177
31	Influence of metal contacts and charge inhomogeneity on transport properties of graphene near the neutrality point. Solid State Communications, 2009, 149, 1068-1071.	0.9	168
32	How Close Can One Approach the Dirac Point in Graphene Experimentally?. Nano Letters, 2012, 12, 4629-4634.	4.5	159
33	Two-dimensional electron and hole gases at the surface of graphite. Physical Review B, 2005, 72, .	1.1	148
34	Graphene as a transparent conductive support for studying biological molecules by transmission electron microscopy. Applied Physics Letters, 2010, 97, .	1.5	138
35	High-temperature quantum oscillations caused by recurring Bloch states in graphene superlattices. Science, 2017, 357, 181-184.	6.0	117
36	Macroscopic self-reorientation of interacting two-dimensional crystals. Nature Communications, 2016, 7, 10800.	5.8	108

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37	From One Electron to One Hole: Quasiparticle Counting in Graphene Quantum Dots Determined by Electrochemical and Plasma Etching. <i>Small</i> , 2010, 6, 1469-1473.	5.2	98
38	Tuning the valley and chiral quantum state of Dirac electrons in van der Waals heterostructures. <i>Science</i> , 2016, 353, 575-579.	6.0	88
39	Electron transport in graphene. <i>Physics-Uspekhi</i> , 2008, 51, 744-748.	0.8	83
40	Electronic phase separation in multilayer rhombohedral graphite. <i>Nature</i> , 2020, 584, 210-214.	13.7	81
41	Low flicker-noise GaN/AlGaN heterostructure field-effect transistors for microwave communications. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 1999, 47, 1413-1417.	2.9	80
42	Phonon-Assisted Resonant Tunneling of Electrons in Graphene-Boron Nitride Transistors. <i>Physical Review Letters</i> , 2016, 116, 186603.	2.9	78
43	Submicron sensors of local electric field with single-electron resolution at room temperature. <i>Applied Physics Letters</i> , 2006, 88, 013901.	1.5	75
44	Composite super-moiré lattices in double-aligned graphene heterostructures. <i>Science Advances</i> , 2019, 5, eaay8897.	4.7	74
45	Temperature-driven massless Kane fermions in HgCdTe crystals. <i>Nature Communications</i> , 2016, 7, 12576.	5.8	73
46	Giant oscillations in a triangular network of one-dimensional states in marginally twisted graphene. <i>Nature Communications</i> , 2019, 10, 4008.	5.8	67
47	High thermal conductivity of hexagonal boron nitride laminates. <i>2D Materials</i> , 2016, 3, 011004.	2.0	66
48	Resonant tunnelling between the chiral Landau states of twisted graphene lattices. <i>Nature Physics</i> , 2015, 11, 1057-1062.	6.5	64
49	High-Yield Production and Transfer of Graphene Flakes Obtained by Anodic Bonding. <i>ACS Nano</i> , 2011, 5, 7700-7706.	7.3	43
50	Temperature-driven single-valley Dirac fermions in HgTe quantum wells. <i>Physical Review B</i> , 2017, 96, .	1.1	38
51	Submicron probes for Hall magnetometry over the extended temperature range from helium to room temperature. <i>Journal of Applied Physics</i> , 2003, 93, 10053-10057.	1.1	37
52	Effect of channel doping on the low-frequency noise in GaN/AlGaN heterostructure field-effect transistors. <i>Applied Physics Letters</i> , 1999, 75, 2064-2066.	1.5	35
53	Tunnel spectroscopy of localised electronic states in hexagonal boron nitride. <i>Communications Physics</i> , 2018, 1, .	2.0	33
54	Coherent Emission in the Vicinity of 10 THz due to Auger-Suppressed Recombination of Dirac Fermions in HgCdTe Quantum Wells. <i>ACS Photonics</i> , 2021, 8, 3526-3535.	3.2	17

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55	Electrically Controlled Thermal Radiation from Reduced Graphene Oxide Membranes. ACS Applied Materials & Interfaces, 2021, 13, 27278-27283.	4.0	12
56	Electron tunneling through single-barrier heterostructures in a magnetic field. Physical Review B, 1994, 50, 4897-4900.	1.1	9
57	New effects in graphene with high carrier mobility. Physics-Usppekhi, 2012, 55, 408-412.	0.8	9
58	Scanning gate microscopy on a graphene quantum point contact. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 44, 1002-1004.	1.3	8
59	Tunneling in Graphene/h-BN/Graphene Heterostructures through Zero-Dimensional Levels of Defects in h-BN and Their Use as Probes to Measure the Density of States of Graphene. JETP Letters, 2019, 109, 482-489.	0.4	7
60	Twisted monolayer and bilayer graphene for vertical tunneling transistors. Applied Physics Letters, 2021, 118, .	1.5	7
61	TRANSVERSE SPIN TRANSPORT IN GRAPHENE. International Journal of Modern Physics B, 2009, 23, 2641-2646.	1.0	5
62	Conductance anomalies in gated V-groove quantum wires. Nanotechnology, 2002, 13, 487-490.	1.3	4
63	Intrinsic Pinning of a Ferromagnetic Domain Wall in Yttrium Iron Garnet Films with Strong Uniaxial Anisotropy. Journal of Low Temperature Physics, 2005, 139, 65-72.	0.6	4
64	COERCIVITY OF SINGLE PINNING CENTER MEASURED BY HALL MICROMAGNETOMETRY. International Journal of Nanoscience, 2004, 03, 87-94.	0.4	3
65	METALLIC AND SEMICONDUCTOR HALL MICROPROBES FOR WIDE TEMPERATURE RANGE APPLICATIONS. International Journal of Nanoscience, 2004, 03, 123-130.	0.4	2
66	Ferromagnetic domain wall on nanometer scale. Journal of Physics: Conference Series, 2005, 17, 101-107.	0.3	1
67	THz magnetospectroscopy of double HgTe quantum well. , 2016, , .		0
68	On the Role of Structural Imperfections of Graphene in Resonant Tunneling through Localized States in the h-BN Barrier of van-der-Waals Heterostructures. Semiconductors, 2020, 54, 291-296.	0.2	0
69	Symmetry of diffraction patterns of two-dimensional crystal structures. Ultramicroscopy, 2021, 228, 113336.	0.8	0