Sergei V Morozov

List of Publications by Citations

67 papers	105,510 citations	44 h-index	70 g-index
70 ext. papers	115,707 ext. citations	13.2 avg, IF	7.67 L-index

#	Paper	IF	Citations
67	Electric field effect in atomically thin carbon films. *Science*, **2004**, 306, 666-9	33.3	47045
66	Two-dimensional gas of massless Dirac fermions in graphene. *Nature*, **2005**, 438, 197-200	50.4	16518
65	Two-dimensional atomic crystals. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 10451-3	11.5	8888
64	Detection of individual gas molecules adsorbed on graphene. *Nature Materials*, **2007**, 6, 652-5	27	6263
63	Control of graphene's properties by reversible hydrogenation: evidence for graphane. *Science*, **2009**, 323, 610-3	33.3	3338
62	Giant intrinsic carrier mobilities in graphene and its bilayer. *Physical Review Letters*, **2008**, 100, 016602	7.4	2509
61	Room-temperature quantum Hall effect in graphene. *Science*, **2007**, 315, 1379	33.3	2342
60	Field-effect tunneling transistor based on vertical graphene heterostructures. *Science*, **2012**, 335, 947-50	33.3	1991
59	Strong light-matter interactions in heterostructures of atomically thin films. *Science*, **2013**, 340, 1311-4	33.3	1850
58	Unconventional quantum Hall effect and Berry's phase of 2π in bilayer graphene. *Nature Physics*, **2006**, 2, 177-180	16.2	1621
57	Biased bilayer graphene: semiconductor with a gap tunable by the electric field effect. *Physical Review Letters*, **2007**, 99, 216802	7.4	1524
56	Vertical field-effect transistor based on graphene-WS2 heterostructures for flexible and transparent electronics. *Nature Nanotechnology*, **2013**, 8, 100-3	28.7	1342
55	Graphene-based liquid crystal device. *Nano Letters*, **2008**, 8, 1704-8	11.5	1319
54	Micrometer-scale ballistic transport in encapsulated graphene at room temperature. *Nano Letters*, **2011**, 11, 2396-9	11.5	1203
53	Molecular doping of graphene. *Nano Letters*, **2008**, 8, 173-7	11.5	907
52	Strong suppression of weak localization in graphene. *Physical Review Letters*, **2006**, 97, 016801	7.4	734
51	High electron mobility, quantum Hall effect and anomalous optical response in atomically thin InSe. *Nature Nanotechnology*, **2017**, 12, 223-227	28.7	723

50	Electron tunneling through ultrathin boron nitride crystalline barriers. *Nano Letters*, **2012**, 12, 1707-10	11.5	579
49	Dirac cones reshaped by interaction effects in suspended graphene. *Nature Physics*, **2011**, 7, 701-704	16.2	577
48	Tunable metal–insulator transition in double-layer graphene heterostructures. *Nature Physics*, **2011**, 7, 958-961	16.2	417
47	Twist-controlled resonant tunnelling in graphene/boron nitride/graphene heterostructures. *Nature Nanotechnology*, **2014**, 9, 808-13	28.7	341
46	Effect of a high-kappa environment on charge carrier mobility in graphene. *Physical Review Letters*, **2009**, 102, 206603	7.4	304
45	Strong Coulomb drag and broken symmetry in double-layer graphene. *Nature Physics*, **2012**, 8, 896-901	16.2	303
44	Electronic properties of graphene. *Physica Status Solidi (B): Basic Research*, **2007**, 244, 4106-4111	1.3	229
43	Interaction-driven spectrum reconstruction in bilayer graphene. *Science*, **2011**, 333, 860-3	33.3	226
42	Giant nonlocality near the Dirac point in graphene. *Science*, **2011**, 332, 328-30	33.3	217
41	Interaction phenomena in graphene seen through quantum capacitance. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 3282-6	11.5	197
40	Magnon-assisted tunnelling in van der Waals heterostructures based on CrBr3. *Nature Electronics*, **2018**, 1, 344-349	28.4	167
39	Influence of metal contacts and charge inhomogeneity on transport properties of graphene near the neutrality point. *Solid State Communications*, **2009**, 149, 1068-1071	1.6	152
38	Ultrasensitive gas detection of large-area boron-doped graphene. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 14527-32	11.5	146
37	How close can one approach the Dirac point in graphene experimentally?. *Nano Letters*, **2012**, 12, 4629-34	11.5	136
36	Two-dimensional electron and hole gases at the surface of graphite. *Physical Review B*, **2005**, 72,	3.3	131
35	Graphene as a transparent conductive support for studying biological molecules by transmission electron microscopy. *Applied Physics Letters*, **2010**, 97, 153102	3.4	123
34	Electronic properties of a biased graphene bilayer. *Journal of Physics Condensed Matter*, **2010**, 22, 175503	1.8	121
33	From one electron to one hole: quasiparticle counting in graphene quantum dots determined by electrochemical and plasma etching. *Small*, **2010**, 6, 1469-73	11	88

32	Macroscopic self-reorientation of interacting two-dimensional crystals. *Nature Communications*, **2016**, 7, 10800	17.4	86
31	High-temperature quantum oscillations caused by recurring Bloch states in graphene superlattices. *Science*, **2017**, 357, 181-184	33.3	83
30	Submicron sensors of local electric field with single-electron resolution at room temperature. *Applied Physics Letters*, **2006**, 88, 013901	3.4	69
29	Low flicker-noise GaN/AlGaN heterostructure field-effect transistors for microwave communications. *IEEE Transactions on Microwave Theory and Techniques*, **1999**, 47, 1413-1417	4.1	66
28	Phonon-Assisted Resonant Tunneling of Electrons in Graphene-Boron Nitride Transistors. *Physical Review Letters*, **2016**, 116, 186603	7.4	63
27	Tuning the valley and chiral quantum state of Dirac electrons in van der Waals heterostructures. *Science*, **2016**, 353, 575-9	33.3	63
26	Electron transport in graphene. *Physics-Uspekhi*, **2008**, 51, 744-748	2.8	59
25	Resonant tunnelling between the chiral Landau states of twisted graphene lattices. *Nature Physics*, **2015**, 11, 1057-1062	16.2	49
24	Temperature-driven massless Kane fermions in HgCdTe crystals. *Nature Communications*, **2016**, 7, 12576	17.4	47
23	High thermal conductivity of hexagonal boron nitride laminates. *2D Materials*, **2016**, 3, 011004	5.9	41
22	High-yield production and transfer of graphene flakes obtained by anodic bonding. *ACS Nano*, **2011**, 5, 7700-6	16.7	37
21	Giant oscillations in a triangular network of one-dimensional states in marginally twisted graphene. *Nature Communications*, **2019**, 10, 4008	17.4	36
20	Submicron probes for Hall magnetometry over the extended temperature range from helium to room temperature. *Journal of Applied Physics*, **2003**, 93, 10053-10057	2.5	36
19	Composite super-moir□lattices in double-aligned graphene heterostructures. *Science Advances*, **2019**, 5, eaay8897	14.3	36
18	Effect of channel doping on the low-frequency noise in GaN/AlGaN heterostructure field-effect transistors. *Applied Physics Letters*, **1999**, 75, 2064-2066	3.4	31
17	Electronic phase separation in multilayer rhombohedral graphite. *Nature*, **2020**, 584, 210-214	50.4	31
16	Tunnel spectroscopy of localised electronic states in hexagonal boron nitride. *Communications Physics*, **2018**, 1,	5.4	25
15	Temperature-driven single-valley Dirac fermions in HgTe quantum wells. *Physical Review B*, **2017**, 96,	3.3	23

List of Publications

14	Electron tunneling through single-barrier heterostructures in a magnetic field. *Physical Review B*, **1994**, 50, 4897-4900	3.3	9
13	New effects in graphene with high carrier mobility. *Physics-Uspekhi*, **2012**, 55, 408-412	2.8	7
12	Scanning gate microscopy on a graphene quantum point contact. *Physica E: Low-Dimensional Systems and Nanostructures*, **2012**, 44, 1002-1004	3	6
11	TRANSVERSE SPIN TRANSPORT IN GRAPHENE. *International Journal of Modern Physics B*, **2009**, 23, 2641-2646	1.1	5
10	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	1.2	4
9	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	1.3	4
8	Conductance anomalies in gated V-groove quantum wires. *Nanotechnology*, **2002**, 13, 487-490	3.4	4
7	Electrically Controlled Thermal Radiation from Reduced Graphene Oxide Membranes. *ACS Applied Materials & Interfaces*, **2021**, 13, 27278-27283	9.5	4
6	COERCIVITY OF SINGLE PINNING CENTER MEASURED BY HALL MICROMAGNETOMETRY. *International Journal of Nanoscience*, **2004**, 03, 87-94	0.6	2
5	Twisted monolayer and bilayer graphene for vertical tunneling transistors. *Applied Physics Letters*, **2021**, 118, 183106	3.4	2
4	Ferromagnetic domain wall on nanometer scale. *Journal of Physics: Conference Series*, **2005**, 17, 101-107	0.3	1
3	METALLIC AND SEMICONDUCTOR HALL MICROPROBES FOR WIDE TEMPERATURE RANGE APPLICATIONS. *International Journal of Nanoscience*, **2004**, 03, 123-130	0.6	0
2	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	0.7	
1	Symmetry of diffraction patterns of two-dimensional crystal structures. *Ultramicroscopy*, **2021**, 228, 113336	3.1	6